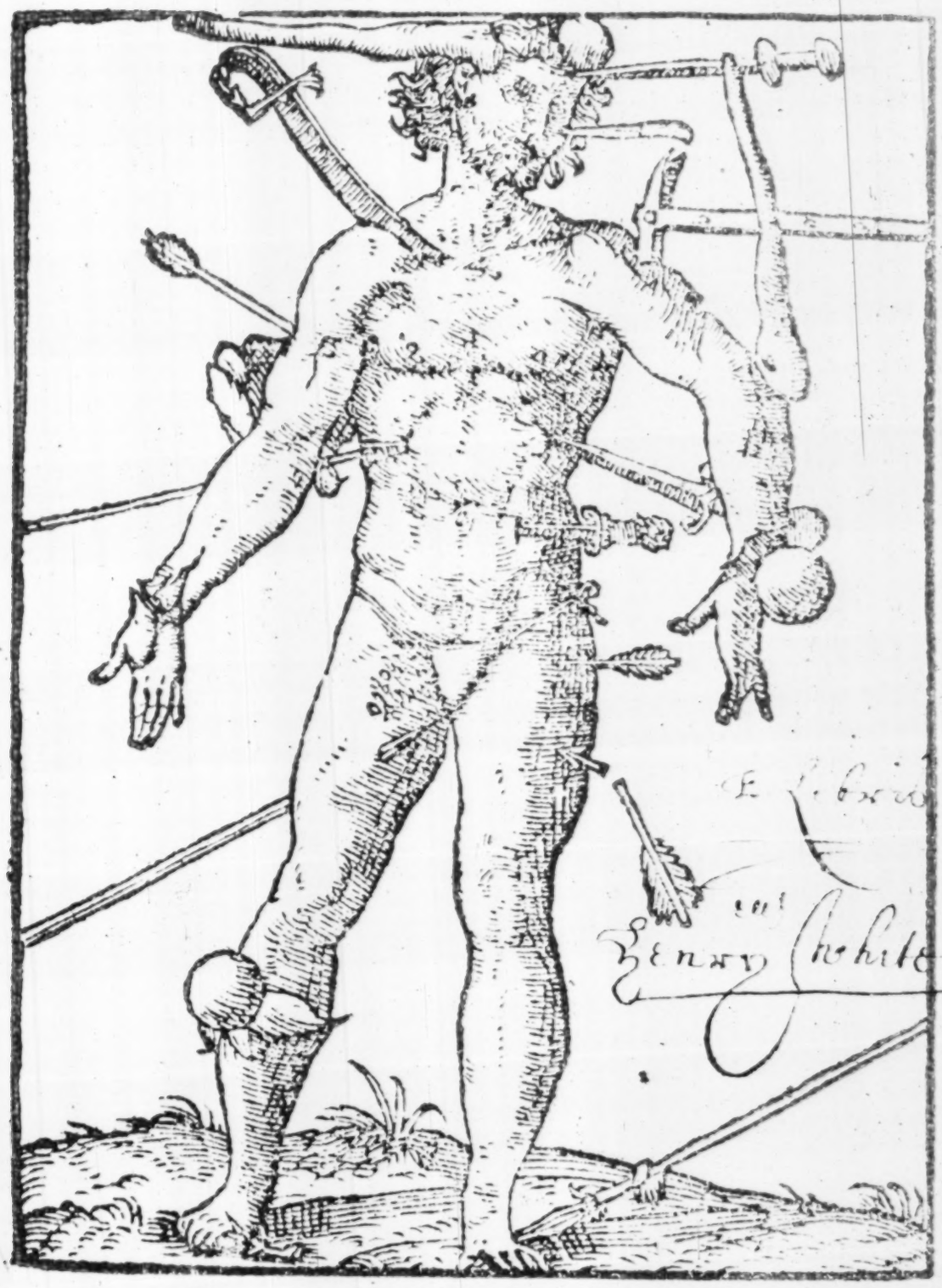
CERTAINE VVORKES

of Chirurgerie, nevvly compiled and published by Thomas Gale, Maister in Chirurgerie.



Pryated at London by Rouland Hall.

The contentes..

1. An Institution of Chirurgerie. lib.i.

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3. An excellent treatise of the wounde made with gonneshote, in whiche is confuted the grose opinion of Jo. Vigo, Brunswicke, Alfonsus Ferrius, and others. lib.i.

4. An Antidotarie conteyning the principall and secrete medicines, vsed in the art of Chirurgerie. lib.i.

To the right honorable the Lord ROBERT DVDDELEY Maister of the Queenes Maiesties horse, Knight of the noble order, one of the moste honorable priue counsell, and his syngular good Lord and Maister &c.

IF that be true (right honorable) which not onely Aristippus the Philosopher, but all other doe confesse, that those things are to be taught, practised and mainteyned, whiche in a common weale are moste profitable & necessary: Then I maye boldly without iust cause of reprehension affirme that Phisick is not the least, but one of the principall to be taught, practised, and had in honour and price. And because I wyll not further wade then my profession extendeth, I shall onely touche the thyrde parte therapeutick called with vs Chirurgerie. This parte whether for the antiquitie, as the moste auncient parte of Phisicke: or for the necessitie and vtilie of it I shoulde most commende, I can not easly iudge. But if we shall beleue Cornelius Celsus, or the olde wryters, we muste of force confesse it to bee more auncient, then the other two. For before the tyme of the Troian warres, Chiron Centaurus, and Melyphus were of greate renome, and

same, because they had first founde the arte to cure certaine virulent & maligne vlcers (which afterwarde according to the names of Chiron and Telyphus) were called Chironia & Telyphea vlcera. In the tyme of the Trojans mortal warre, Podalirius and Machaon, being vnder Agamemnon, did mervaylously profite the Soudiours in curing their woundes, taking out of Dartes and thyngs in them fixed, and applyng healthful plaisters and medicines to the wounded partes. What necessitie is of Chirurgerie, or how much commoditie and profite by it ensueth, let them answere, whiche are by the benefite of this arte delyuered from payne, preserued from losse & mutilation of members, & defended from death it self: But here I holde backe my penne in further commendynge Chirurgerie, least it might iustly be answered of your Lordship to me as was to the Sophiste, who resiting a whole booke written in praise and honour of Hercules, said, who dispiseth Hercules: So in like sort, your Honour might answere, who dispiseth Chirurgerie: In deede my good Lorde, none dispiseth it whiche are reasonable, and fewer enemies it shoulde haue, if the Professours them selues (in this our miserable tyme) were lesse gredy of money, and moore diligent to learne their arte. And although the malice of other make me heare to to holde my peace: yet if I may craue your Lordships supportation in so vertuous an enterprise,

I shall

I shall not cease to set oute some of the partes of Chirurgerie: that thereby the yong and studious Surgians may be made the abler both to know, and also to exercise their art. And therfore I haue made a booke intituled the Institution of a Chirurgion: then I shewe them a methodicall practise to cure wounds, fractures, and dislocations, in my booke called an Enchiridion of Chirurgerie. And for that I heare that many Surgians want knowledge of curing woundes made with gonshot (being nowe at Newhauen, vnder the right honourable L. Ambrose Earle of Warwicke, your honours moste deare brother) I for their ayde haue also compiled a treatise conteyning the parfite cure of gonshot. In which also I confute ỹ errours of diuers touchynge this question: whether the wounde made with gonshot is venomous: laste of all because the yonge men for want of tyme haue not iudgement sufficient, either to chuse out ỹ best & most conuenient medicines, or ells to compounde newe: I haue made myne Antidotarie, contaynyng the principall and secrete medicines vsed in Chirurgirie. In which I doe not only set oute suche as the best writers maketh mencion of, and I by longe experience haue found profitable: but also I do open diuers new, and to other yet vnknowen of my selfe inuented. Beseechynge moste humblye your Lordshyppe, to take these bookes (the first fruits of my labours) into your noble protection, and defende

bothe them and me the Authour from the malyce of busye Detractours. And I shall not onely haste other bookes, whiche I haue by me vnfinished, but also as my duty requireth, praye vnto the Almyghtye for your Lordshyppes longe lyfe, perfite healthe, and daylye increase in honoure. At my poore house in London, the sirctenth day of July.

1563.

Your honours moste humble and obedient seruaunt

Thomas Gale.
Chirurgian

W. Cunyngham Do-

ctor in Phiſicke vnto his approued frende
Thomas Gale, Maiſter in Chirurgerie,
ſalutations.

WHy ceaſe you maiſter Gale? vvhat kepeth backe the publiſhing of your iiij. bookes, vvhich vvith ſo great trauaile, and perfite ſkyll you haue ſo happelye finiſhed? Doth feare of Sycophants and detracting tongues aſtoyne you? Or the miſtruſt of ſeuere iudgemēt at the learned, kepe back your honeſt attempt? Let theſe be no impediments I ſhall deſyre you, but baniſhe feare, and put from you miſtruſt. And as touching the maleuolent detractors, it either nedeth not, or helpeth not to ſtād of thē in dread. Apes vvil euer haue apiſhe properties, vvith mocking, movving, & grinning at euery perſō do vvhat you cā. I my ſelf haue ſomvvhat taſted of their curteſie, and therefore can better vtter their nature vnto you. They be ſuch as for the more part are ignoraūt thē ſelues, or if they beare the face of learning, yet be they arrogant & loiter in idlenes: & therfore to maintein their name, do carpe and reprehend other mens good labours, thinking thereby among the rude

multitude to get them more fame and honour. These haue not so muche hindered me vvith their serpentine tongues, as made me among the vvise and learned, of greater estimation. For although it be a common sayeng, yet is it moste true, VIRESCIT VVLNERE VIRTVS. But vvyll you eschevve their sting and poyson? Be idle then, loyter, regarde neyther your duetie to God, nor yet to your countrey. this must of force be your shift, vvhich hovv honest it is, be you the Iudge your self. But you vvil saye peraduenture, you are armed against this sort sufficiently not regarding their fors: and yet you dread the censure, and iudgement of the graue and learned. Surelye these you need least of all other to feare. For lyke as Apes can do nothing but apishely: so vvyll the learned do nothing but learnedly, discretlye, and vvith great aduisement. They consider by theyr ovvne trauailles, that it is no trifling, but great paynes to vvryte in any arte or science. And vvhen they reade other mens labours, and fynde perhappes some errours, they reiect not the vvorke, they deface not the authour, but think vvith them selues HOMINIS EST ERRARE. And if the errours be such as are thought

thought not tolerable, they vvill not curriſhely checke: but curteouſly admoniſhe, or els vvith theyr pen ſpedely amend it. Seing therfore that chattering layes may not preuayle againſt you: and that I haue (as I ſuppoſe) deliuered you of the miſtruſt you had in the learned: deferre no longer tyme, nor make no moore delayes. But ſince your countrey craue it, your approued frends earneſtly looke for it, and your duetye to both theſe require it: Kepe theſe bookes no lenger in darknes, but let them taſte of lyght. And as touching your requeſt in your letters ſent to me, to peruſe & read your copies, to alter, chaũge and adde as I ſhoulde thinke good, I haue ſome vvhat ſatisfied your expectation herein. And firſt I ſee your great diligence in reading your authours in Chirurgerie, as Brunus, Theodoricus, Rolandus, Launfrancus, Rogerus, Bartalpalia, Guido de Cauliaco VVilhelmus Ier. Brunſ ſvvike, Vigo and other. And do alſo conſider vvhat paine & great difficultie it vvas, to collect ſo perfite vvorkes, out of ſo imperfite authours. I ſpeake it not to their diſpraiſe, they vvere in the tyme of ignorauuce. But in my ſimple iudgement, if the followving of Galene, Auicene, Meſue, and others, of vvhome in your

bookes

bokes you make ſo often mentiō had not ſtayed you, and your long experience conducted you, you ſhould of force haue fallene into the huge pitte of cloudy & moſt groſſe errours. Amonge vvhich theſe followving are not the greateſt, but yet not ſufferable in any caſe. For vvhat man is ſo mad knovvinge the nerues to be the cauſe of fealing, vvyll in vvoundes of the nerues bydde ſtitch the ſame? vvho is ſo bolde in great vvoūds in vvhich there is fixed ſplentes, ſhot, arrovve heades, and ſuch lyke, to geue the Pacient ſlepe drinkes as they call them? vvho is ſo rude in vvounds vvith gonſhot made thorovv a member, as to dravve an hearinge rope through the vvounde? Or vvhat ignoraunce appeareth in them all, in confounding the names of diſeaſes and miſcalling of ſimples? Doth not Guido the beſt of theſe authours rehearſed, cal œdema, vndimia? Eryſipelas, hiriſipela? ſcirrhus, ſcliros? and that vvhich I moſt meruayle at, that he calleth eſtiomenon (vvhich is herpes exedens) mortem et diſsipationem membri, and he interpreteth eſtiomenon, quaſi hominis hoſtem. Hovv farre from the matter it is, and hovv ridiculous an interpretation, let the learned iudge. I lothe to vvrite them, & repent the loſt tyme in reading them

them. But theſe for a taſt I offer, vvhereby gentle reader thou maiſt the better iudge & eſteme the labours of the author our contrymā. VVho for hys countryes ſake haue ſpared no tyme to trauaile, nor regarded his great expence. Yea & that vvhich is more, not his febled old corps vvhich is very vnapt to take ſo great a thing in hād. This for my part I dare bouldlye affyrme, that neuer in Engliſhe vvas ſo perfite vvorkes in Chirurgerie ſet oute: and I dought vvhether in any other tounge there be in all poyntes any vvork extant in Chirurgerie vvhich vvith theſe may be compared. For if vve ſhall loke firſt of his inſtitution in Chirurgerie, hovv pithylye plainely & compendiouſly doth he ſet out the hole body of the art, ſhovving the definitions, diuiſions & alſo apt names of tumors againſt nature, vvoundes, vlcers, fractures, diſlocations, and other like? Hovv diligently inſtructeth he the ſtudent in Chirurgery firſt in the theoricke and then in the practicke part? Then the ſtudent being thus trained vp & novv made apt to practiſe, he ſendeth him to his Enchiridion in vvhich is ſet out the method of curing vvoūds both in the ſimiler and inſtrumental parts, and alſo ſuch apte medicines as are for thē conueninent.

He

He doth moreouer ſhevv the cure of ſuch accidents as do often chaunce to vvoundes. Laſt, he doth open the curing of fractures and diſlocations. Further more he hath finiſhed a treatiſe of curyng vvoundes made vvith gonſhot, in vvhich learnedly he doth cõfute the long receiued errour that hath ben mainteined for truth, hovve that ſuch vvoundes ſhuld be venemous. Hovv pleaſant this argument is, & alſo ꝓfitable, I refer it to thy iudgemẽt (gentle reader) miſtruſting nothing, but vvhen you ſhall vvay his arguments, vvith theirs of the contrarye parte, you vvyll be vvholly of myne opinion. And yet this good Gale ſtayeth not here, nor is fatigate and vveried vvith theſe great paines: but hath alſo finiſhed a golden vvorke, vvhich he calleth his Antidotarie: in vvhiche, is comprehended the treaſures of Chirurgerie. There ſhal the Chirurgian hauing need of medicines vvhich do repell, attracte, reſolue, mollifie, ſuppurate, mundifie, incarnate, conglutinate, cicatrize (and vvhat is els requiſite to be vſed in the art) finde abundance, aſvvel of thoſe vvhich are called ſimple, as alſo of them vvhich becauſe they ſtand in the mixture of diuers ſimples, are named compoũd.

There

There ſhall he alſo vvith ſmale payne,& great gaine receyue in one houre,that vvhich in fourtie yeres trauaile vvith no ſmale expence, this Gale hath inuented and found out. Theſe bookes are novv perfitly finiſhed. He hath moreouer in his hands diuers other vvorks(as I heare) vnfiniſhed,as a booke intituled a compendious Method of healing tumours againſt nature:another,of the true and perfite cure of all kynde of vlcers . Alſo a nevve tranſlation of Guido de Cauliaco, vvith certaine briefe cõmentaries vpon the ſame.Beſides theſe:there be other,vvhoſe titles I do not knovve. Therefore that theſe maye alſo come to thy vſe,I ſhall require thee to ſhevve a gratefull heart,and thankfully receyue that, vvhiche he hathe vvith payne finiſhed, and is freely vvithout revvarde offered. But being delyghted vvith the argumentes of theſe bookes, I am digreſſed from anſvveryng the other part of your letter Maiſter Gale. You required me,that ſince I vvas ſo earneſt vvith you for the publiſhing of your bookes:that I vvould vvryte ſomevvhat in the prayſe & commendation of Chirurgerie. VVhiche thinge in myne opinion vvere ſuperfluous , vvhen that there can be no greater prayſe then is vvritten in

your

your vvorkes. conſidering that through the benefit of this arte the vvoundid is made hole, the broken bones vnited, the Iointes being out of their naturall feat, reducid into their proper places, the hough and painful tumores expelled, & the virulent & maligne vlcers (vvhich doth eate and deuoure the members of man no leſſe then mothes do clothes, & fire that is put to it) are vanquiſhed and ouercom. Be not theſe great benefites? and ſuch as nedeth not the cõmendatiõ of other? But yet if theſe vvil not ſatiſfie you, at the next ſetting out of other of your labours if this my vveake body may recouer ſtrength (I) vvil to my povver ſatiſfie your expectation. In the mean time: I bid you vvel to fare, & remẽber your vvhyte heares are maſſengers to admoniſh you that you muſt leaue this vvorld, & repaire to the heauenly Chirurgian Chriſt. And therefore haſt you for the time that remaineth, & finiſhe thoſe vvorkes vvhich you haue in your handes.

Againe fare you vvell: and loue your Cunyngham as you haue begonne. At my houſe in London the. 28. of May

1563.

1716
1769
1773

Tho. Gale Chirurgian,

to the Frindly readers Salutations
in Christ Iesus, &c.

IT was not without great skil & knowledge, that the wise & lerned Grecias did cal man by the name of Microcosmos, which is as much to say with vs, as the lesser worlde. for the greater worlde (in Greke, cosmos) doeth consist of the heauenly, & elementarie region. And the lesser worlde (being man) doth vnder God, reule & gouerne what so euer is them conteyned. & applieth them to his vse and profite. & if we shal begin firste, with that most meruaylous hande worke of God, I meane the beautiful heauenes, so woūderfully adorned & decked with most comfortable lightes: what els shall we iudge, but that he ruleth them, whan being placed so farre frō them distant, doth diligētly & truly note & obserue, not only ther motions, astentions, discentions, progressions, retrogradations, stations, deuiations, declinations, coniunctions, & sondry configurations: but also marketh what mutations, altercations, & effectes, they cause in the elementarie région, wherby he is taught to take that which may be to his profit & gayne: & eschew, or els mitigate and equally beare, what is therto cōtrary. and here of it came to passe, that the great Astrologian, Claudius Ptolomeus durst boldly affirme that

The wiſe, by Prudence and good ſkyll.
Shall rule the ſterres to ſerue his will.

Yea, & the wyſe Philoſophers and Poetes, which did deapely, and with no ſmall iudgement beholde the figure and ſhape of man; howe he only among all liuyng creatures loked vpwarde to the heauens, they dyd conſtantly affirme, that only for that cauſe he had gyuen to him ſuche countenaunce, and that right eloquently the Poete ſitteth out in theis fewe verſes.

Pronaque cum ſpectant animalia cętera quęque
Os homini ſublime dedit, cęlúmq; videre
Iuſsit, & erectos ad Sydera tollere vultus.

Where all thynges that doe breath,
Doe on th'earth ther lookes caſt:
God whan man he dyd make
gaue him ſo greate a grace:
On Sonne, Moone, and eke Sterrys.
That he his eyes might faſt:
Alſo to veiw the ſkye.
And that with vpright face.

And here by the way I gather, that this countenance was not gyuen man only to gape, gaſe, ſtare, & toote an the heauens: but wyſelye to conſider the wounderful forme & frame herof, how inceſſantly it forneth, & moueth abought the center of the yearth. & that the heauens are as freſhe & luſtie at this preſent to fulfil ther courſe, as at ther firſt creation. and that he by conſiderynge them, might confeſſe that ther is a God, who ruleth them, & hath made them to his vſe & profit. but let that paſt & cume we vnto

the

the elementarie region. What thing is ther in conteyned which he gouerneth not, and taketh of them profit. the wyndes he gathereth in a smal cõpasse, & by the forse of them, he romneth & walketh on the hough seas as on the lande. The fyshes in the greates depes he bringeth to his handes. the foules of the ayre for al ther swyftnes of winges, he getteth for his pray. Yea he subdueth one foule, & teacheth it to bringe diuers others vnto hym. Example of the hauke, & the partrich. suche is the diuine wisdome, & greate poure giuen to this litle worlde, man. what doeth he not subdue the most stronge & terse beastes, & ouer runne those that are most swyfte? the horse beinge a corragious & proud beast, for all his strenth, swyftnes, and forse in his houys, doth he not bridle and tame, and rydeth on hym like an Emperour & gouernour? The mightye Lyon for all his strength, is made captiue & subiecte. the hart, and hare, for all ther swyftnes, he ouertaketh. and to conclude, what beaste is it whom man hath not, or can not bryng in subiection? What saye you to the venemous serpentes, scorpions, toades, and such as are poyson to humaine nature, whiche man doth not onely vanquishe: but of them maketh healthful medicines to expell greuous infirmities. I omit for breuitie, the innumerable trees, plantes, frutes, herbes, rotes, gummes, slowes, mettalls, and earthes, whose secret natures he hath founde out, whose vertues he hath tried, & whose substance he doeth rightly vse for his commoditie & welth. What artes hath he inuented, what scienciens founde, and misteries

set out: so that of right as I suppose, I may cal man microcosmos, and the lesser worlde. But me thinke I heare one demaunde, to what ende is this longe tale of man set out. Forsoth that you may riply and duely consider what a noble and excellent substance man is of, who is the subiecte and matter on which the Phisician and Chirurgian doe worke. but as touchynge the Phisician I haue nothynge to saye, and therfore of the Chirurgian I purpose somwhat to utter. both to warne this microcosmos man, of those who vnder the name of Chirurgians be nothynge els but open murtherers, and also to deface theis rude Emperikes, and to pricke forwarde the righte Chirurgian. and that you maye the easelier conceyue that which I go aboughte, it behoueth you to knowe, that chirurgery is moste harde and difficultye to attayne vnto, and is also a longe arte, and requireth longe tyme in lernynge, and also exercisyng: as both the princes of Phisicke Hippocrates & Galen do testifie: and all wyse men doe also confesse. for howe can it be but difficil and longe, whan the Chirurgian must consider so many diuers temperatures of men, and hyd and secret effectes, and properties of nature in them grafted. Wherefore doeth one loue porke, an other hateth it as poyson. some abhorre chese, some frute, & other some wyne: Wherfore doeth one concocte and digest meat most harde to concocte: an other is not able wyth out longe tyme to digest the easiest and lightest meates: Wherfore is one by drinkinge of wyne made loose bodied, and soluble: wher an other man can not

haue that benefite, no not with strōg & vehement laxatiues: furthermore, Chirurgirie for the greater part consisteth in right vse of profitable experimēts: whiche require both longe tyme in the findynge of them out, & also in obteynyng ther right vse. & leste you may obiecte that one may receyue experiments of other that are lerned, & so easely obteyne the arte: I must say that the right vse can not so easily be obteyned. for to that, is required that both the Chirurgian hymselfe be lerned & wyse: and furthermore that he seeth other Chirurgians of longe experience worke, & put those experimēted medicines in other right vse. This also maketh the arte longer, for that ther spring new infirmities in our dayes vnknowen to them before our time. What say you to Chamæleontiasis, vulgarly named morbus gallicus? Who euer haue written of the nature cause, & accidentes of it: which is the occasion that so many miserably haue dyed, & daily perishe of it: & those that haue receiued helth, haue bene so small a numbre. againe the art is longer to vs Englishe men, then to other, whan as we are first constrayned to learne the latine tongue before we can attayne the myndes of those who wright of Chirurgirye. there be diuers other thinges which also maketh the arte longe: which for that I wyl not be tedious, I comit to thy discretion to consider. Nowe this I conclude, if the subiecte of Chirurgirye be so noble and excellent a creature: the arte must also be noble & excellent, whiche teacheth to worke on it. if the art be excellent, then it

folowth

folowe̅th that it is difficult and hard. agayn, if it be longe: then it requireth a lōg tyme in the obteyning therof, if then that the subiecte of Chirurgiry be so noble, the art so excellent & difficill: & so long a time required in the gettynge therof: thou mayst easelye iudge that the rable of theis rude Emperikes (and drosse of the yearth whiche whan they can not otherwyse lyue choppe strayst ways in to the arte of Chirurgirye) be no Chirurgians: but manquillers, murtherers, and robbers of the people: suche are some hosiers, taylours, fletchers, mynstrelles, souters, horsheches, Juglers, wiches, sorceres, baudes, & a rable of that secte: which wolde by lawes be driuen from so diuine an art, the exercise of whiche for want of knowledge, bringeth some tyme losse of member, some tyme of lyfe, and some time both of lymme & life. Wherfore I do admonisshe the frendly reader, what so euer thou arte, that hast nede of Chirurgirye, not to trust euery runagate, & him that called him selfe a Chirurgian: but consider whether he be lerned or not, demaunde of him some questiōs of his art (which if thou canst not do of thy selfe, thou shall finde diuers in my booke intitled, the Institution of a Chirurgian) whiche if he answereth them thou mayst be the boulder to commit thy selfe to to hym. otherwyse trust hym not, though he sayth he haue cured an hundred of that infirmitie. for experimentū fallax, experimētes are deceyuable. now seing by theis fewe liues, you may coniecture what a diuine and excellent art Chirurgirye is, and how thou mayst discerne and knowe the right Chirurgian

from

from the murtherynge and burtterly Emperike, I thinke it good in fewe wordes to set out vnto thee, what caused me to publishe theis fewe and symple labours of mine. Ther ware two thynges whiche moued and styred me hereto (louyng reader) the first was the discharge of my talent towarde God, and dutie to my native countrye; the second was to helpe my Brethren Chirurgians who althoughe they are desirous to attayne ther arte, yet both because it is so long, and not set out in our vsuall language, they are frustrat of ther desire, and the comon welth vnfurnished of men of this profession. wherfore musinge longe with my selfe, what parte of the art I might best set out, as most necessary for them, and most spedely to attayne the art: I founde none more conuenient then first to wright an institution of a Chirurgian, in which he myght lerne ỹ theorike parte and principles of the art: which whan as I had finished and brought to an ende: I dyd not thinke good ther to stay, but thought also it a necessarye thing to compile fourme tretise, comprehending the practise of some partes of the art. Wherfore I dyd set penne to paper, & wrotte an Enchiridion of Chirurgirye, contaynyng the methode and way to cure woundes, both in similer and instrumental partes, and eke fractures and luxations, wyth a newe way, of stanchyng flux of blod with out cauterizen wyth by a pouder diuisyd by maister Perpoint & me, whã as any membre is taken of from the body, & is now in the hospitalles of London vsed to the great cõfort of the sicke people, and sauegarde of ther liues, wher

commonly

comonly before they perished and decayde. and whil I thought heare to haue stayed, behoulde warres folowed, and controuersie arose wether the cure of woundes made with comon gonnepouder & shotte ware like to inuenomed woundes, or els woundes contused, whiche controuercye to decyde I thought for the tyme necessarye. and haue compiled a litle volume confutynge the aduersaries opinions, and establishynge myne owne, and yet further wayeng what want the Chirurgians had of good and approued medicines belongynge to ther arte, I dyd take out of the best authours, suche as might serue herein ther necessarie vse, addinge therto suche experte medicines as I had both inuented and proued. and this booke I haue called my Antidotarie. all whiche.iiij. bookes, I shall require thee hartelye to take in so good part, as I doe offer wyth free harte, and loue to profit, both the & other. and heare, I may not forget maister Doctour Cunnyngham, who was no smal helpe to me in diuising the argumēts, & perusynge the copies written, whose trauelles in this behalfe I cōmende to thy thākful minde louing reader. ther now reasteth no more, but to committe my woorkes with my selfe vnto thy Judgement prayeng thee wher the errours haue escaped, both to pardon the same, & also to gyue me warnynge of them. thus doinge thou shalt encorage me duringe lyfe accordynge to my small knowledge, to trauaile in this my vocation. Fare hartelye well louynge Reader, at my poore house in London, the. xij. day of September. 1563.

An Institution

of a Chirurgian, conteynynge the sure Groundes and Principles of Chirurgerie most necessarie and mete for all those that will attaine the arte perfectly: for whose cause it is compiled by Thomas Gale, maister in Chirurgerie.

Theorica pars.



PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.


1563
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVE 56

Thomas Gale Chirurgian vnto those that desyre the knowledge of Chirurgerye gretinge. &c.

TWo thynges theyr are (sore to be lamented) which chiefely haue brought the most noble and auncient arte of Chirurgerie to extreme decaye and ruine: one is that euery person good and badde, learned and vnlearned, Chirurgian or no Chirurgian, doe wythout penaltie and correction of lawes freelye take on them the practise of Chirurgerie. the other thyng is, that the Chirurgians them selues (I speake for the greater number) are vnworthye professours. The fyrste we can not redresse, but lament: the second somewhat we both can and wyll labour to amende. for the greatest number of Chirurgians (I meane those that are their vnto

laufully called) are so rude and vnskil-full in their art, because they haue no methode, no exact waie, or yet order in learnynge the grounds & principles of Chirurgery, eyther set oute of any authour whom they are able to vnderstande: or elles taughte of their maisters and tutours, of whom they should beinstructed. So that they are confused in their studies, and make rather a rude chaos then a perfecte arte of Chirurgerye. For nowe it is come to thys poynte, that if they can get thys recepte, and that recepte as they terme it, they thynke they nede no futher stodye. So that the more receptes he hath, the greater Chirurgian he thinketh hym selfe to be: such ignorance now raygnes, that recepts beareth the bell: theorike of Chirurgerye is quit forsaken, or not regarded. For yf you shall come to one of these greate maysters wyth their receptes, and aske hym what Chirurgery is, what ys the subiecte to Chirurgery

rurgerye, what is the ende of Chi-
rurgerye, howe manye partes doth
Chirurgerye consyste on: they are
constrayned to be silent and say inum,
or yf anye be inpudent and speake, he
gyueth but a ridiculous aunswere.
& yet we wyl thynke a man not mete
to be called an artiste or workeman,
whiche cannot tell (beynge required)
what hys art is which he professeth:
although he hathe neuer so manye
instrumentes and toales. For the art
consysteth in the righte vse of the in-
strumentes, and not onely in hauinge
them. Whiche vse is gotten fyrst by
learnyng the arte, and then by exerci-
synge the same. And to learne the art,
is required a Methode and Order: for
wyth oute it, you shall neuer exacte-
lye attayne the same. Wherefore
we nowe accordynge to oure smalle
poure and symple knoweledge, way-
inge the prominysses, and hartelye wis-
shynge the redresse of the same: haue
sette oute the Theorike part of Chi-
rurgrye

rurgye in thys presente volume conteynynge the principles and sure groundes of the arte, in suche order and methode as shalbe moste conuenient for the yonge student. And yf I haue not here in performed that whyche I desyred: yet I haue gyuen occation to those that are better learned, to sette oute a more perfytte worke of thys argumente. And I thoughte good to make it Dialogue wyse for that it is moste apte to teache and instructe by. For by thys meanes, all doubtes maye be bothe demaunded, & also aunswered fullye. And for because it is the fyrste Booke that one muste reade whyche wyll learne the arte, I haue named it the Institution of a Chirurgian, in whyche he shall see not onelye what hys arte is, but also what maner a person he muste be hym selfe: and what conditions are in hym required. further more what instrumentes he muste be garnished wyth, and howe he shall in tyme and

and place vse them ryghtelye to the profyte of the paciente, honour of thys arte, and hys owne worshippe. Wherefore their resteth no more, but that you take these my labours thākfully, and reade them diligently. Farre hartelye well: and forgette not to spende thy tyme to the profyte of the common weale. At my house in London the 20. daye of Maye.

1563.

AN INSTITVTION OF A CHIRVRGIAN, CONTEYNING

The ſure Groundes and Principles of Chirurgiry, by Thomas Gale. &c.

The Interloquutors.

Io. Yates, Tho. Gale. Io. Feild. Chirurgians.

Iohn Yates.

PHœbus who chaſith awaye the darke and vnconfortable night; caſtinge his goldyne beames on my face, woulde not ſofer me to take anye longer ſlepe: but ſaid awake for ſhame, & beholde the handy worke of our ſiſter Flora, how ſhe hath reueſted the earth wyth mooſte beautyfull colours, meruaylouſlye ſet in trees, plantes, herbes, and floures: in ſo muche that the old and wetheryd cote of wynter, is quite done away, and put out of remembrance, at whiche wordes of Phebus, my hart quickened in me, and all deſire of ſlepe was eftſones forgotten. Wherfore I am now cumme into this beautiful mydolwe to recreate my ſelfe, and gather ſome of thoſe pleaſant herbes, and floures, whiche here doe growe. But let me ſee: me thinke I perceyue. ij. men walkinge to gether and reaſonynge alſo very earneſtlye. I wyll approche neerer vnto them, perchaunce they be of my acquaintaunce: ſuerly I ſhoulde knowe them, I am deceyued yf the

yf the one be not my frende maister Gale, and the other maister Feilde. It is so in deade. Wherfore I will go and salute them. God that hath brought vs together in to this place, make this daye prosperous and fortunate vnto you both.

Tho. Gale, Brother Yates the same we wishe vnto you, & you are welcome into our cõpany.

Iohn Feilde. This faire and pleasant morninge, will not suffer maister Yates to kepe his bed: but leuynge the citye, he rometh the feildes, to espie oute some strange herbes, vnto hym yet vnknowen.

Iohn Yates. I muste of force confesse, that you doe hitte the nayle on the heade: but sence my happe is so fortunate, as to mete wyth you both, and that nowe in this pleasant morning: I wolde leaue of my former determinyd purpose, and require you to enter into some talke of Chirurgerye. For sens you both ware brought vppe vnder Maister Ferris (beinge nowe Sergeant Cherurgian, vnto the Quenes Maiestie) one at whome bothe for his knowledge, & erperience, you dyd not a lytle profite: and also that you haue had longe practise your selues: you shoulde meruayllously pleasure me, and profit other. for so may it come to passe, that it myghte be in the place of an Institution vnto those that shall here after desire the knowledge

ledge of Chirurgerye.

Tho. Gale. Your requeſt is honeſt, and reaſonable: and therfore not to be denyed.

Iohn Feild. We ware abought the like thinge when as you ſaluted vs, wherfore renewyng our firſt talke, we will accompliſhe your deſire.

Iohn Yates, I haue redde manye authour in Chirurgerie, and yet finde ſmall profit by them.

Thomas Gale. What be the names of youre authours.

Iohn Yates. Theodoricus, Brunus, Lanfrancus, Rolandus, Rogerus, Bartilpalia, Vvilhelmus, Guido, Brunſvvicke, and Vigo.

Iohn Feilde. What parte of Hippocrates, Galene, Auicenne, Paulus, Rhaſis, Albucaſis, and Haliabbas, haue you rede? theis be of greter authoritie, and of whom you ſhal learne ſounde doctrine.

Iohn Yates. Wyth theis I haue not ben much acquaynted.

Tho. Gale. Well, then the nexte waye is that you do put oute ſuche queſtions as you wolde haue anſwered, and ſtande in doute: and alſo anſwere to that which ſhalbe demaunded.

Iohn Yates. right gladly, for ther is no waye by whyche I ſhall ſo muche, and in ſo ſhorte a tyme profit.

Iohn Feilde. Truth it is, wherfore let vs begin with

gin wyth out further detracynge of tyme.

Tho. Gale. Then seyng our talke shal wholly be the institution of a Chirurgian, it ware mete, and conuenient first to vnderstande what Chirurgery is. Wherfore answere me I pray you, what call you Chirurgirie?

Iohn Yates. Guido de Cauliaco (in his boke which he calleth his Collectorie) defineth it in this sorte. Chirurgirie is a parte of terapentike helinge men by insition, vstion, & articulation.

Iohn Feilde. Those wordes, are taken out of a booke ascribyd to Galen, beinge intituled Introductio, seu Medicus. But he should not haue called it corruptly terapenticke, but therapeuticke. For Therapeuticòn is that part of phisicke, which curyth. this part consisteth eyther in curyng by conuenient diet: eyther by medicyne; or els by outwarde vse of the hãde. there Galen (or he that was author of the booke aboue said) affirmeth howe y which healith by the hande, is a portion of the curatiue parte. this helpeth men by incisions, vstions, and reducinge the bones into their naturall seate.

Tho. Gale. Yet this is no perfect definitiõ of Chirurgerie, because the definition doth not contayne in it so muche, as to Chirurgerie is required.

Iohn Yates. Then you shall here an other definition

finition out of Guido. He saith that Chirurgery is sayde of this greke worde Ciros, whiche signifieth an hand: and Gyos that is worke, or operation: as who sholde saye, Chirurgerie is the science of worckynge by the hand; how like you this definition?

Iohn Feilde. Worse then the other, both for y it is no definition, but only the signication of the name: and also for that Ciros and Gyos, be no greke wordes, which shoulde showe, that eyther Guido was no grecian, or els that his workes are corruptyd.

Tho. Gale. Truth it is, for Chirurgia, is deriuid Apò tês cheiròs caì toû érgou, but both the description of Chirurgerie, & also the Etymologie & signification of the name, doth right wel showe what Chirurgerye is: although it be no answere to our demaunde.

Iohn Yates. Then I pray you let me learne at your handes, what ys the trew and essentiall definition of Chirurgerye.

Tho. Gale. Right gladly. Galene in his boke of medicinall definitions, sayth that Chirurgerye is the quicke and redy motion of stedfast handes with experience: or an artificiall action in phisicke, done by the handes: wherby is obteyned the desiered scope. So that you may by theis wordes hether to aledgyd out of the introduction, and the booke of medicinall definitions.

tions, forme a definition on his wyse. Chirurgery is the arte, whiche curyth those infirmities, & grefes of mans body, whiche are to be done by right vse, and application of the hande.

Iohn Feilde. In this definition is to be notyd, that Chirurgery doth not cure al greifes which require helpe of the hande: but onlye suche as are curable. Also it is to be vnderstande, though in the definition is put no other wayes of curynge those grefes, but by the right vse of the hande, yet Chirurgerie hath nede both of that parte whiche curith by dyet, and of that whiche helpeth by medycine. As is moost euident & clere in great inflammations, & also in those bodyes in whiche Cacochimia (that is to say yll Iuse) is found, where the humours are defilyd and corruptyd.

Iohn Yates. Then it shold seme that Chirurgery is so ioyned to the other two partes, that it can not be well seperatyd from them: although they be now two distincte artes.

Tho. Gale. Truth it is, and in the begynnynge, phisicke and Chirurgery ware both one: & one man exercised both, for so did the princes of phisicke Hippocrates and Galene.

Iohn Yates. Then I perceyue that Chirurgerie is not so base, as it is taken for: and that it is of great antiquitie, beinge the most auncient

cient parte of phisicke, and was exercisyd of Emperours, Kynges, Philosophers, and Phisicians.

John Feilde. The baseness of it, and eke smal estimation, comyth of the vnlearnid and rude Emperikes: who takyth on them the office of a Chirurgian, whan as they knowe nothynge lesse, then what Chirurgery meaneth. but as touching the antiquitie of Chirurgery, you shal not beleaue vs, but regarde the wordes of Cornelius Celsus (whiche are written in his. vij. booke) who sayth. Hæc pars cum sit vetustissima, magis tamen ab illo parente omnis Medicinæ Hippocrate, quàm à prioribus, exculta est. This part of Phisicke (saith Celsus beinge the most auncient, yet it was more increasyd by Hippocrates (the father of all Phisicke) then of al those that ware before his time. Here you maye perceyue, that it is the most auncient and eldyst part.

Tho. Gale. The same Celsus also setteth oute certayne noble persons who daylye more, and more, did augment the art, for it did florishe in AEgypte by reason that Philoxenus dyd exercise it. Also Gorgias, Sostratus, Hieron, the two Apollonij, & Hammonius of Alexander. At Rome also Tryphon and Euelpistius, and Neges ware ryght excellent in Chi-

rurgerie:

rurgerie: and by there lerned wo3kes, dyd cause the arte not a litle to flo3ishe. Podalirius, and Machaon (the sonnes of AEsculapius) being vvith Agamemnon, in the Troian warres, cured the woundyd Soudiours; as Homere the Greke Poet affirmeth.

Iohn Feild. All theis as you say ware right excellent in Chirurgery: and famous also, chefely fo3 curing of woundes, and vlcers. In like so3te, was Chiron Centaurus, and Achilles, wyth diuers other.

Iohn Yates. Seynge that I haue learned that Chirurgery is the. iij. parte therapeutike, what Chirurgiry also is, of the antiquitie, & au-thors of the same: I wold gladly vnderstande of howe many partes it doeth consist & stande on.

Tho. Gale. It hath. ij. partes: the one called Theorike, conteynynge the speculation and knowledge, the other Practike, whiche is the manuall operation and exercise. The theo3ike parte, is obteyned by demonstration, and exacte knowledge of the principles of the arte, and this, both doth inuente, and teache what is to be done, whiche way, and also by what meanes. This parte a man maye perfectlye knowe, although he neuer doeth exercise any po3tion of the practike. the practicke parte is founde oute and inuentyd by reason and experience, and it

doeth

doeth rightly, and redelye exercise the same thinges, that the Theorike hath inuentyd. This parte no man can exactly obtaine, except that both he doeth se other whiche are skylfull in the arte to worke: and also diligentlye exerciseth it him selfe euer bearing firmely in minde, both what he haue sene of other men brought to good ende, and what he haue also done hym selfe.

John Yates. When seinge that you haue vttered vnto me howe manye partes of Chirurgirye ther are: I pray you first beginne wyth the Theorike parte of it, and let me vnderstande exactlye what it is, and that beinge finishyd, proceede to the practicke.

John Feild. To set out the theorike it wyll by profitable: but as touchyng the practicke it ware both superfluous & vayne, seyng ý the perfite curing of apostemes, & tumours, are set out in the boke of tumoures against nature, also the true & exacte cure of vlcers, is at large opened in an other worke, whose title is a perfecte and exacte methode of curynge vlcers. Furthermore the practise of healing wounds both in similer & instrumentall partes, also of fractures, and luxations: you shall fynde in his Enchiridion of Chirurgerie. And as touching wounds made wyth the common gonpouder and pellet, you shall receyue the trew and methodicall cure,

in a tretise berynge name of curynge woundes made wyth gonshotte, in whiche treatise is set out, and also manifestlye confuteted, the grose and fonde errours not onlye of Iohn Vigo, Alfonce Ferrius, and Hier. Brunvvicke (which make the shote venemous, and consequentlye the wounde therewyth made, and so the cure to be lyke as is in venemous woundes:) but also by demõstration he ouertroweth al those, that be of that opinion. So that for the practicke parte, I do not se what is more to be desired: excepte it ware some treatise, in whiche might be comprehended the arte of phlebotomie or letynge of blode, and also of scarification, and boringe whiche I hope (God grauntynge hym lyfe) he wyll hereafter set out.

Iohn Yates. Theis be a numbre of worthye bookes, whiche do contayne the practise of so worthye an arte. God graunt you longe lyfe maister Gale, to accomplishe that you haue yet behinde.

Tho. Gale. Although some perchaunce more busie then lerned: and yet more lerned, then discrete and modeste, and yet parhappes more descrete & modest, then a fauour of those that trauayleth for the profit, and vtilitie of other: haue not a litle lifted vp the groyne, & bent the brow, & with manifest wordes of contumelie rewarded me: yet the loue of my countrye, and desire

to profit

to profyt thoſe of my profeſſion: ſhall euer be a ſufficient ſpurre, to prouoke me to continue as I haue begonne, for trew it is that the Poet Pertius writeth.

Felix à tergo quem nulla Ciconia pinxit.

Whiche maye ryghte well be engliſhed, although not verbatim yet in meanynge on this or lyke ſorte.

O happie man that ſuch happe haſt,
Thy path to treade ſo right:
That no ſerpentyne tungue vvyll carpe,
Or longbild Storke eke Spite.

But returne we to that, from whence we are ſomewhat digreſſed. our talke, and communication at thys preſente ſhall not further extende then to inſtitute the Chirurgian in the theoricke parte of hys arte. Wherefore ſence you haue learned what Chirurgerie is, wyth dyuers other apte, and nedefull thynges: it dothe behoue you to knowe the ſubiecte of Chirurgerye. For all Artiſtes and workemen haue their ſubiectes, and matter on whyche they doe exercise there arte. So the Maſon hathe ſtones, and brickes, whyche accordynge to hys arte, he heweth, ſquareth, cutteth, & proportioneth. In lyke ſorte dothe

the Carpenter wyth Woode, and Tymbet and the Smyth wyth yron. All whyche be accompted subiectes to these artes. And yf the Mason Carpenter and Smythe, be so curious and dilygent, in knowyng, chosyng, and consyderynge of stones, tymber, and yron, whyche be thynges of no great valour or estimation: howe muche more then behoueth it the Chirurgian to knowe what the subiecte is on whyche he must exercise hys arte?

Iohn Yates. You haue ryghtlye sayd, and by these your wordes I gather, that the subiecte to the arte of Chirurgirie, is that whyche is to Physike: I meane mans bodye beyng apt aswell to sycknes and infyrmities, as also to health.

Iohn Feild. You haue ryghtlye aunswered, but thys is not sufficient to aunswere that mans bodye is that stone, tymber, yrone and matter whereon the Chirurgian muste exercise hys arte: excepte you also doe knowe the partes of mans bodye, there situation, nature, and office. as of bones, cartilagies ligamentes, Nerues, vaynes, arteries, muscles, flesche, and skynne. For I thynke no man is so rude but doth consider, that wythoute the perfect knowledge of these, how easely he shall fall into intollerable errours, especiallye in phlebotomye, in fractures, and luxations

tions, and where as occasion is offered to make incision.

Iohn Yates. The more I here you two speake of Chirurgirye, the further me thynke I fynde my selfe from the knowledge thereof. And so much the rather, that by your wordes I gather howe that the subiecte and matter of Chirurgerye (beynge the bodye of man) cannot be fully knowen, wythout the exercise of the Anotomye. Wherefore I cannot a lytle meruayle at some, who beynge Chirurgians in name, doe not onlye neglecte thys knowledge of Anotomye: but also Inuieth those that doe therein trauayle.

Tho Gale. Wel let such go wyth there wilfull blindnes, & obstinate ignorance, and let vs nowe consider what the ende of Chirurgery is.

Iohn Feilde. I suppose that maister Yates knoweth that the ende or intention of Chirurgery, is to healc all suche curable infirmities, as are to be cured by the office and dewe administration of the hande.

Iohn Yates. I render to you both harty thankes, for that by your talke I haue learned what Chirurgiry is, the antiquitie of it, & noble authours that did professe it, of howe manye parts it doth consiste on, also what is the subiect or matter on whych the Chirurgian doth exercyse his art, and what is the ende or final inten-

tention of Chirurgerye: nowe I wyll further desyre you to showe me the waye to procede in lernynge and obteynyng thys noble and famous arte.

Thomas Gale. Before we set oute the waye howe to attayne the knowlege of Chirurgerie, it is conuenient to showe what maner a man a Chirurgian shoulde be whome we shoulde instructe in this arte. For manifest it is, that all men are not to be admitted vnto thys mysterye.

Iohn Feild: Truthe it is for accordynge to the prouerbe. The diuell made a souter a shypman. signifying here bythat nature repugning all thynge is in vayne howe vnapte and vnfyte thynke you, is a swyne to be taughte to hunte: suerly as vnapt, as a hounde is apte & fytte: but in the admission of one to learne oure arte, is to be noted the gyftes of nature, & also education from hys infancye. For yf men exercising artes of lesse estimation and pryce, doe with dilygent care chose suche as are fytte for their facultye & arte: howe much more oughte he Chirurgian so to doe?

Tho. Gale, It is suerly so and the gyftes of nature required in hym that should be a Chirurgian Cornelius Celsus doth name to be these. He must be a yonge man, hauyng a sure

and

a stedfast hand, voyde of trimblyng, and that he hath the vse of the lefte hande, as well as of the ryghte, a sharpe and quicke sighte, one voyde of all feare, wythoute folythe pitie: so that he be no moued anye thynge by the clamour and noyse of the patient. but minding to cure hym, whom he taketh in hande, he shall neyther haste more then is meete, or yet make lesse incision then is requisite. Hippocrates in a booke intituled Lex Hippocrates, speaketh of hym that shall learne Phisycke in thys sorte, Quisquis enim medicam scientiam verè sibi comparare volit, hijs Ducibus, voti sui compos fiet. Natura, Eruditione, Loco studiis apto, Institutione à pueritia, Industria & tempore. Primò nanquè omnium, natura est opus. Hac etenim repugnante vrita fiunt omnia. at si ad optima viam natura demõstret, artis eruditio facilè eueniet: quam quidem prudentia sibi comparet oportet, ita vt ab ipsa pueritia institutio accedat, atque hoc in loco disciplinis quidem conuenienti. Prę-terea operam sedulò nauare oportet: eámquè ad longum certè tempus, quo ipsa iam insita disciplina, fœliciter satis, & cum profectu fructus suos ferat. Who so euer (sayth Hippocrates) wyll learne the arte of Phisycke, folo-wyng

folowyng these guides he shal haue hys desire. Nature, learnyng, an apte place for study, good bryngyng vppe from the chyldhoode, diligence, and tyme. For fyrst of all nature is to be looked for. For nature repugnynge, all thynges are frustrat. But yf that nature be inclyned vnto the best thynges, the knowledge of the arte wyll easely folowe, whyche it behoueth to get throughe prudence, so that from the chyldehoode he be well trayned vppe, and that in a place apt for study. further more he muste bestowe greate dilygence, and that for a longe tyme, so that learnynge (beynge nowe grafted in hym) may e happelye, and that wyth increase bryngе forthe her fruites. And Hippocrates resembleth the study of Phisycke vnto agriculture or tyllage. For (saythe he) what consyderation is of those thynges whyche the earth bryngeth out, the lyke in all poyntes is of the knowledge of Phisycke. For our nature is as it ware the feilde, the disciplynes of teachers, are like the seades: also the institution and bryngynge vp from the childhode, is resembled to the castynge of seade into the grounde in dewe and conuenient tyme, the place in whyche he must learne, is as it were the ayre gyuinge nourishment to suche thyngs, as sprynge oute of the grouude. The industrie & diligence bestowed in the art, is lyke the

tyllage

tyllage of the plowman, and laſte of all, tyme dothe ſtrengthen theſe, and ſuffereth them perfectlye to be nowriſhed. And of thys tyme ſpeaketh alſo the poet.

Aſsiduo illiſu durum cauat Vndula Saxum.

The vvatry droppes, ſo moyſt and Softe
Doth pearſe harde Stones vvith falling ofte.

Iohn Yates. If thys ſhoulde be obſerued amonge phiſicians, I doe not doubt but their ſhoulde be more famous men among vs, and fewer rude and buſſardlye Emperickes: but thys toucheth nothing the Chirurgian.

Iohn Feilde. As muche as the Phiſician, for doe you not remember, that Hippocrates comprehended Chirurgirye vnder Phyſicke beynge one portion of the curatiue parte?

Tho. Gale. Alſo as touchynge education Hyppocrates in hys booke called De Medico. would haue a Chirurgian folow the warres. For he ſpeakyng of the other partes of Phyſycke ſaythe. Perte is the Chirurgerye of woundes receyued in the warres, and extraction of dartes and thynges in them fyxed. For ſeldome cyuill and inſteſtine diuiſions chaunce in all tymes, yet in externe and outwarde warres, theſe chaunce moſte commonlye.

Wherfore

Wherefore he that wyll vse thys Chirurgery, it behoueth hym to frequent the warres, and folowe outwarde armyes, and hostes of men. For so shall he be exercised for that necessitye and vse.

Iohn Feilde. In dede so dyd Podalirius, Machaon, and Achilles, wyth other more of whom mention is made.

Iohn Yates. Yea but many Chirurgians wyll not occupye themselues in learnyng those partes of whyche they haue daylye exercise. Muche lesse then couit to folowe the warres, they haue not suche a burnynge zeale vnto their arte.

Thomas Gale. The more pitye, not for their cause, but for the common weales.

Iohn Yates. If all these pointes are required in him that shoulde be a Chirurgian (as I must confesse they are) howe happeneth it, that their are an infinite number of Chirurgians in name, whyche haue scarse one of these forenamed, gyftes. And yf they haue any, it is boldnes, for that wanteth not in them, they are as bouldе, as blynde bayerd.

Iohn Feilde. Yea but where Celsus praiseth bouldnes in a Chirurgian, he meaneth the vertue called fortitude, whiche where as necessytie doth require, is not moued wyth the

the teares, countenaunce, and clamour either of the pacient or of the standers by: but myndynge the health of the sycke, according to arte maketh incision, and doth suche lyke thynges.

Thomas Gale. And to aunswer you, why their are suche a sorte of rude Emperickes yea Hosiers, Taylours, fletchers, Minstrales, Soutters, Jogelers, wiches, baudes, and to conclude (an infinite number whyche hertofore ware prohibited the exercise of thys arte) suche as other wyse cannot get anye lyuynge: is for that Chirurgerie is nowe, as it was in the tyme of Hyppocrates. Who sayth that other artes are not exercised wythout lawes, and penalties: but Chirurgerye is free for all persons, the more is the pitye, when as so muche hurte and damage doe daylye spryng, through the abuse of so noble an arte. so that I am more then halfe perswaded, that Chirurgerye wyll hardlye, or neuer gather strength agayne, and florishe: excepte the prynce hauinge compassion of poore deplorated Chirurgerye, doth by vertue of lawes driue awaye from her, theis here forenamed enemyes.

Iohn Yates. But yet I doe meruayle at those, whyche are as it were Chirurgians by profession, knowynge them selues voyde of a number of the poyntes required in a Chirurgian

gian, that for loue to their contrye, and conscience sake: they wil not yet at the leaste chose suche seruantes, as had some of the fornamed vertues. Whyche yf they dyd, their were yet some hope that Chirurgirie shoulde hereafter florysshe.

Iohn Feilde. Their aunswere is, that when the skey fall we shall haue larkes. They thynke that they shoulde not haue seruantes to serue in that vocation. For few say they, that haue well brough vp there sonne, will put hym to the arte, because it is accounted so beggerly, and vile. Wher as in deade if for a season they woulde take the more paynes them selues, & admitte none, but such as shuld be somwhat meet, there wolde be a nombre glade to studye the art, because it woulde come to estimation, and be a worshipfull lyuynge to the professer. But shall I shewe you what I thynke is the chefe cause: science hath no greater enymie, then Ignorance, and also the prouerbe is trew, like wil alway to the like, and hereof comith it, that suche carpenter suche chippes, suche maister suche man.

Iohn Yates. Yet me thynketh that one maye be a good Chirurgian, thoughe he haue not all the pointes reconyd of Hippocrates and Celsus. As one myght thynke hymselfe ryght happye, though he neuer dyd attayne to Aristoteles

ſtoteles ſummum bonum, or Plato his Idæa.

Tho. Gale. It is one thyng to ſay a good Chirurgian, and an other to ſaye an excellent Chirurgian. But let that paſſe, I woulde we had good Chirurgians. And becauſe the deſcriptions of Hippocrates and Celſus touching what maner a man a Chirurgian ſhould be) ſemeth ſomwhat to ſtraite to you: I wyll ſhowe you what conditions Guido requyreth in hym. Not for that I do preferre the authoritie of Guido, before ſuche fathers and parents of Chirurgirye, as both Hippocrates and Celſus ware, but becauſe perhappes Craſſa craſſis conueniunt magis. Guido requyreth. iiij. thinges in hym that is or ſhoulde be a Chirurrurgian. Firſte that he ſhoulde be lettered, ſecondly that he ſhold be expert, thyrdlye that he be ingenious, and laſt that he be vertuous and well manerid. Theis wordes you ſhall finde in his Collectorie.

Iohn Feild. And as touchyng theis. iiij. pointes note firſt wher Guido ſayth he muſte be lettered, he doth meane he ſhoulde be lerned, and that chefelye in ſuche doctrine as is in his art requiſite. That is at the leſt, that he can wright, red, and vnderſtande the mynde of latyne authour. If he had knowledge in geometric for makynge his inciſion, for curynge fractarus,

fractures, and lurations, and also in curinge malignant vlcers: knowynge what figure woulde mooste spedelye vnite, and Joyne the lyppes of the vlcere: it ware very commendable. Naturall Philosophie is a goodlye ornature to the Chirurgian, for it showeth hym what resulteth whan as there is diuers and sondry simples mixed to gether: but I will go to the second pointe, he must be experte, that is he muste be garnished wyth muche and longe experience, whiche is excogitated be firme and certayne reasons, and by them also confirmed, otherwise he is to be accompted rude, and an Empericke, if he hath not reason annexed and joyned to his experience. Thirdlye sayth Guido. He must be ingenious, vnto whiche there are fyue thynges principally required. Fyrst is the redye and good conceyuynge: then a firme and sure memorye, nexte a sounde and ryght iudgement, after a easey callynge thinges to mynde whyche he haue harde or sene, and laste a lyuelye and sharpe redynes in fyndynge and inuentynge remedyes. The maners whyche Guido woulde haue in a Chirurgian are reconed of Hippocrates and Celsus, whiche briefelye I wyll numbre: they muste be bolde and wyth out feare in suche cures as are with out peryll, and wheras necessitye requireth. Also in cures that be doutful, not to be

to raishe

to raisshe and hastie, to be gentle and courtyous towarde the sicke patient, to be frendlye and louyng, towarde those of hys profession. Also wyse and circunspecte in Prognostications, last of all, he muste be chaste and temperate of body, mercifull towarde the poze, and not to gredy of mony. and this is sufficient touchynge the description of hym, that muste be admitted in Chirurgerye. Nowe let vs talke of the instrumentes wherewith a Chirurgian ought to be garnished.

John Yates. That is well sayde and of those instrumentes I wold gladly haue vnderstandynge.

Tho. Gale. And so you shal, & for the suerer and sounder doctrine, you must note that instruments are said two maner of wayes. for eyther thy are medicinal, or els instruments of metal: as Iron, leade, tynne, copper, siluer, & golde, & medicinal instrumēts are medicines, as potiōs, emplastres, cataplasmes, cerotes, vnguentes, oyles, Balmes, trochise, waters, & suche other. but principally as touching vnguents the Chirurgian (after Guido his minde) ought alwaies to haue in redines, v. sundry vnguentes aunswering to fiue intentions curatiue of Chirurgirie, that is to say: for to suppurate and maturate, he must haue Basilicon, to mundifie and

clense,

clense, Apostolicon. To incarnate and cause flesshe to growe, he shall prepare Vnguentum Aureum. To conglutinate wyth, he shall vse Vnguentum Album. And where as any accidence chaunce, as dolour and payne, he shall occupye Vnguentum Dialthęum. But I shall not nede to make any longer processe of medicinall instrumentes, when as I haue as I suppose abundantlye shewed in my Antidotarye not onely all the principall intentions curatiue required in Chirurgirye: but also haue set oute medicinall instrumentes both symple and compounde, required in thys arte: as also their compositions vse and vertues. Their are also set oute proper medicynes, dicated and apted to the seuerall partes of mans bodye as heade, breast, stomacke, longes, lyuer, splene, kydnes, bladder, and suche lyke, as is proued of Galen in hys worke intituled Secundū locos Although manye be of the contrarye opinion. And amonge the reste I wyll showe you a notable historye, I thynke to manye knowen, as well Phisitians and Chirurgians, as other worshipfull and honest. It fortuned that in London. 1562. that there was a fraye made, and the one was thurste throughe the breast vnder the pappe, and out vnder the lefte shoulder blade so that of force the longes were perced

through

through. There ware diuers Phisicions called vnto the woundyd pacient, and they all affirmed constantly death to folowe. I also beinge called vnto the same pacient, did also affirme that death wouldc folowe, excepte he receyued a certain potion of whiche I had experience in the like case in the warres, in England, France, Scotland, and other places: and he in dede receyued it, and so the longes ware preserued from putrifaction and the congelyd blod was expellyd oute, the woundc clensyd, and finally bythe arte of Chirurgirie he was restoryd to his perfecte helth.

John Yates. That man do I right well know, his name is Henry Smith a water man, he was hurte at quene hiue, and he is yet liuyng and in good helth.

John Feilde. Welthen, let vs speake of metallyne instrumentes. of whiche some of them are generall: so called, for that thy do generally serue in all woundes, and vlcers: and there are particuler instrumentes, seruynge to seuerall vses or partes of the bodye. Yet haue I hard that diuers affirme howe that in woundes generallye there nedyth no other instrumentes then an incision knife, to dilate and inlarge the wounde. and so wyth the fingers to take out the thynges fixe, whether it be pellyt, splente, arrowe head, or what els so euer it be:

but the errouers of theis are so grose as requireth no aunswere, seinge that throughe suche kindes of incisions, it happeneth the greate vaynes, and arteries to be cut, and so greate flur of blode to folowe, (beside the doulour, and payne whiche foloweth and many tymes losse, and mutilation of the membre) as is in no case tollerable.

Tho. Gale. Truth it is, but touchynge general instrumentes, those which are in most vse and ought to be had in redynes of the Thirurgian are theis: incision sheares, an incision knyfe, a fleame, a lance, whose pictures you maye here set oute, and all this serue to cut and enlarge a wounde: a cauterizin Iron to cauterize with, and stangh flure of blode: a payre of pincers or nippers, to take of plastres, splegeants and thinges frid in the wounde, a probe to serche the wouude with. a crockyd hoke; a nedle and a quill to sowe and stiche with.

Iohn Yates. And what be the instrumentes whiche are called proper?

Iohn Feilde. Proper instrumentes are theis whose figures also folowe, as a trappan, serupnge to the heade whan as the scul or cranium is fracturyd, speculum oris, and speculum matricis, also gossipium, seruyng for luxations and fractured bones, a siryngie masculine

and

and also kempne setons for the necke, alenatories and longe neeles of woode. to drawe through the wounde. also gosebilles, crowesbilles, & diuers other described & set out of Albucasis, Celsus, Tagaltius, and others.

Tho. Gale. Theis instrumentes be of meruaylous vse, and wyth out whiche the Chirurgian can nether perfectlye, nother wythout greate greife and peril do that is required. and amonge the rest in my iudgement the trappen is most necessarie, and of an excellent inuention in hurtes of the heade. For with out it wher cranium is fractured, brosyd, or els anye of the inwarde panicles depressed, you shall litle preuayle. I my selfe haue vsed it wyth great profit diuers tymes, and especiallye ons in Cambridge sheire, whiche I woulde declare vnto you, but that I shoulde be somwhat tedious.

Iohn Feilde. Nothynge lesse, but rather pleasant. for by vtterynge of thynges done, great profit may insewe, and we haue decreed to spende this daye in the talke of Chirurgirye wherfore we desire you declare that historie and we wyll geue diligent eare.

Tho. Gale. Right gladlye. Anno. 1559. a seruant of one maister Wrothes, ridynge to the feildes and ledynge a ponge horse in a halter

tyed fast abought the arme of the seruant: the horse beynge wylde, and not broken, starkinge aside vnhorsed thy man, and drewe hym by the arme a bought a great feilde so long, that what wyth strikynge, what wyth drawynge, halyng and pullynge, being weried he stode still, vntyll company came and losed the halter, and toke vp the man halfe deade, and conuayed hym vnto his maisters house. Chirurgians ware sent for, who fyndynge the seruant spechlesse, and wyth out remembraunce of any on whome he sawe: they not perceyuynge the cause hereof them selues, nether yet could be shewed of the pacient the place affected, departed and left hym as vncurable. Maister Wrothe sent for me, and I seinge hym spechlesse, and without remembraunce, coniectured the hinder parte of the heade to be hurte, and smitten of the horse, whiche I was more certayne of, whan felynge that parte I founde it softe. Wherefore I takynge of the heer, dyd made firste incision and after that set a trappan on his heade, and bored Cranium through, and toke oute the peace of bone, which done: ther yssued out muche blod, blacke in colour, and drawynge to putrifaction out of the contused and broken vaynes. the nexte daye folowynge, the seruant spacke and came agayne to his perfecte remembraunce, and I vsyng thynges in this cure as arte requi-

red,

red, God restored the man in my handes to his perfecte helth. I coulde also shewe you other examples wher the like chaunces haue happened, and the Chirurgians eyther not knowynge, or wilfullye neglectynge this profitable instrument, haue brought the patients to therr laste ende. so happened it to a seruaunt of maister Pagetes in fylpotte lane. 1538. and diuers other, whome for breuitie I do let passe.

Io. Yates. This was a worthy cure, and this is a noble instrument, but the Chirurgians whiche neglecte thuse of this or the like instrumentes, are of the opinion of that the rude Emperike Smith was, who in a foliche boke of him published, did inuay against Chirurgians whiche trapened the heade in any griefe of the same, and semeth to him selfe as it ware an other Thessalus to ouer throughe the famous authers, and Inuentours of this instrument. whan (in the iudgement of the lerned) he was no more to them comparable, then the light of a sparke of fire, is equall to the mooste radiant and shyning beames of beautifull Phœbus.

Io. Feilde. This nowe spoken of instrumentes (whiche a Chirurgian muste haue in redines) shall suffice, nowe let vs shewe the methode and way howe the person beinge fitte to be admitted to Chirurgirye, maye lerne the arte, lesse that confusedlye he lerne that firste,

whiche shulde be last, and so set the carte before the horse, to his no small hyndraunce.

Tho. Gale. And for this ther is to be followed and observed two preceptes: firste, that we procede from thynges comon, vnto those whiche are particuler, or from thynges vniuersall, vnto more perticuler. as first to knowe an inflãmation, then howe many kyndes of inflãmations there are. the seconde precepte is, that we begynne at thynges knowen and so procede vnto those whyche are lesse knowen, as firste in the curation of woundes, we muste begynne wyth a simple wounde; whiche done, we shall procede to the curation of compounde woundes. so in lyke maner in vlcers, firste to knowe and cure a simple vlcer, and then to take in hande compounde vlcers, begynnynge wyth those that are lesse compound, and haue smalest accidents: and so to procede vnto those that are more cõpound, & haue most & greatest accidents ioyned wyth them. the like is also to be obserued in other arts, & sciẽties, as in iudgyng of colors, first to know whight & blacke, then other colors which are not so manifest according as they com & spring of ỹ mixture of theis. ỹ. now knowynge & considering theis two preceptes, it is necessary for the right vse of his instruments medicinall, & metalline: to cõsider two thinges, that is to say, thinges called according to natur and thynges against nature. Io. Yates. I pray you

what are those which are called accordynge to nature: & how many be they in nombre?

Iohn Feilde. Guido numbreth those thinges whiche are called accordynge to nature to be. vj. that is to say, helth, the cause of helthe, theffect of helth, strength, custome, & cõplexion. and helth is defined to be an effecte according to nature, apte to performe the actiõs of the same.

Io. Yates. And what doe this. vj. thynges accordynge to nature, teache and shewe me?

Tho. Gale. Because the Chirurgian is natures freinde, & minister: theis shewe you that you muste conserue & kepe them by ther like, & also to expel ther contraries, which wold distroy and ouerthrowe them.

Io. Yates. And wherof do theis. vj. thinges spring, & by what thynges shall I conserue thẽ? for although you say vnto me, ỹ they are conserued & kept by ther like, yet is it not sufficient to my vnderstandinge, except you two shewe me what they are. Io. Feilde. I wyll tell you, theis. vj. thinges which are secundum naturam, spring of, vj. natural thinges entring the cõpositiõn of mans body. that is to say. iiij. Elements, fire ayer, water, yearth, cõplexions, as hote, cold, moyst, & drie. iiij. humors, blod, coller, fleume & melãcholie, mẽbres of mãs body. vertues, animal, vital, & natural, with ther operatiõs, & spirits. of theis. 7. natural springeth helth & ỹ other reherced which are accordyng to nature

The conseruation of helth dothe consist in the right vse of.vj. thynges named in latyn res non naturales. lyke as in the abuse of them, the decay of helth and brydynge of sycknes and infirmities folowth.

Tho. Gale. It is right so, and theis sire are called, ayer: meate and drynke: motion and quiet: slepe and wachynge: repletion and inanition: and the perturbations or affections of the mynde.

John Yates. I trust I am sufficientlye taught how to vse my instrumentes accordyng to the indication taken of the thinges which are accordynge to nature: nowe I pray you let me vnderstande what those thynges are whiche are againste nature, howe manye they are in numbre, and what indication is to be taken of them: for the further vse of my instrumentes.

John Feild. Those whiche are agaynste nature, are so called: because they are contrary to the same, and doe further destroy and ouercume nature, and are vtter enemyes to helth, and theis are.iij. in nombre: sycknes, the cause of sykynes, and the accident. the cause of sycknes, is that effecte contrarye to nature, whyche goeth before the sycknes, and prouoketh the same, and ther are accounpted of Galen, and the Grecians whome I folowe) two causes of

sycknes

ſyckneſ. the one beinge outwarde, called procatarctike, or cauſe primatiue: the other is with in vs, and is named the cauſe antecedent, or precedent, or cauſe interne. ſickneſ alſo is defyned of Galen to be an affecte againſte nature: of whyche the action of nature is firſte hurte, & vitiated. and the ſame Galen doth alſo make iy. kindes of ſickneſ generallye, accordynge to the partes of mans bodye in whyche they are. as in the ſimiler partes, ſyckneſ is called intemperature, whiche is eyther hotte, colde, moyſt, or dryе: or els hotte and moyſt, hotte and dryе: cold and moyſt: cold and dryе: and yf it be in the inſtrumental partes, the ſyckneſ is namyd, yll conſtitution or conformation: but yf ſyckneſ happen bothe to ſimiler and inſtrumentall partes, then it hath to name, ſolution or diuiſion of cõtinuitie. Alſo the accident is one effect againſt nature in lyke ſorte as the cauſe of ſickneſ and ſyckneſ it ſelfe is: but it differet from them in this, that like as the cauſe goethe before ſyckneſ and prouoketh it: ſo doth the accident folowe ſyckneſ, lyke as the ſhadowe doth the man. nowe this worde accident, is taken generally, of whiche we wyll nothyng ſpeake, and it is vnderſtande more ſtraytlye, or properlye, ſo is accidente three wayes diuided. for eyther the action is hurte and quite aboliſhed, as blyndelneſ in the eye: or els diminiſhed, as

diminiſhe

dimnisse of syght, or els the actions is corrupted as the syght depraued, and for the indication whiche is taken of theis three thynges agaynste nature: note theis twoo greate, (and of all men alowed) conclusions. Contraria sunt contrariorum remedia. also, similia conseruantur similibus. lyke as thynges whyche are accordynge to nature, are conserued and kepte by ther lyke: so also thynges contarye, are remedies for ther contrarves. and therfore theis iij. thynges agaynste nature, showeth you that they are to be expelled and put away by there contrarves. as for exampie, solution of continuitye beinge syckues bothe of similer and instrumentall partes showeth that he muste be put awaye by his contrarye, that is vnition and ioyninge agayne, also heat is put awaye by coulones: coulones by heate: drynes by moystnes, and moystnes by drines: and soin like sorte in other sycknesses the indication is taken of the contrarietie. doe you nowe vnderstand this?

Iohn Yates. Right well, so that nowe I doe perceyue that the right vse of my instrumentes medicinall, and metallyne, is takyng of thynges accordynge to nature, whyche showeth the conseruation by lyke and agreable medicynes: and of thynges agaynste nature, whyche teacheth me to applye thynges contrarye

trary wher by I may take awaye all that which is againſte nature. but yf you wilbe ſo good as to ſet oute (though it be in breake wordes compendiouſlye) thoſe thynges agaynſte nature, whyche falleth vnder the handes of the Chirurgian, as you haue made playne to me thoſe thynges whyche are accordynge to nature: I ſhoulde thynke my ſelfe ſo muche bounde, as hardly I ſhalbe able to recõpence. for althoughe I knowe that thynges contrary to nature, are to be remoued by there contraryes, yet if I haue not the exacte knowledge what thoſe thinges are, I ſhall very hardly be able to aplie and vſe there contraries.

Tho. Gale. It is ſuerlye ſo, for howe muche wyde you are in knowledge of the ſyckenes: ſo farre wyde ſhall you alſo be in fyndyng out apte and conuenient remedies, and thoſe perticuler greſes, or affectes againſte nature whyche are ſubiecte to Chirurgirie (as Galen witneſſeth in the. 14. booke 13. chapter of his therapeutike methode) are for the mooſte part reduced to. 6. Titles or chapters. that is to wete tumours againſte nature, woundes, vlcers, fractures, and lurations, there be other thinges beſides theis which require the vſe of the hand: but theis rehearſyd perfectly knowen, thother wilbe eaſye to attayne vnto.

Iohn

Iohn Yates. Then I praye you begynne fyrst wyth tumours, and those beyng fynished proceede to the rest.

Iohn Feilde. Fyrst it behoueth you to knowe that thys woorde tumour (called in Greeke onchos) is not that whych Auicenne, and the Arrabians name Apostema, and the Latinistes call Abscessus. For tumour is a generall name to all apostems, and tumours , where as thys woorde apostume stretcheth no further but onely where as phlegmone is torned into matter, & three other tumours called Atheroma, steatoma, & meliceris, so that this woord apostume , is not so large and generall a name, as tumour is: and therfore abused of Guido, and other, where they call all tumours agaynste nature, by the name of apostemes.

Iohn Yates. Why syr, be not all tumours agaynst nature?

Tho. Gale. No for sothe , for then it had bene for hym superfluous to haue added these woordes, against nature. And Galen in his boke De tumoribus præter naturam , maketh three kyndes of tumoures . One that is secundum naturam, accordyng to nature: as the braines, mustules, and other emynencies of mans bodye. The seconde is called aboue nature: when as

as these forenamed partes are increased more then their naturall forme, and fygure: but yet in suche sorte that the partes can doe theyr offices. The laste kynde of tumour is called tumour agaynst nature. Because thy hurte the action of the parte where it infesteth.

John Yates. I doe nowe cal to remembe-rance Master doctour Cunyngham who made also the same division of tumours .1563. when he red the booke of Galen of tumours agaynst ture to the Chirurgians of London in the hall, but I pray you let me learne what a tumour a-gainst nature is?

Tho. Gale. Out of the same booke of Ga-len, you may gather thys defynition. A tumour agaynst nature, is an augmentation, or swel-lynge, exceedyng the natural fygure of the same and hurteth the action of the same. But Auicenne saith that an apostеme (for so calleth he a tumor) is a sickness cõpound of three kind of infirmities, that is to say of intemperatures, of yl cõstitutiõ, & solutiõs of cõtinuity: these words you shall finde in the first booke of his Canon.

Iohn Yates. How many kind of tumours are there.

Io. Feild. Guido & other writers of his time make iii. kindes of tumors: Apostema, Pustula, & Exitura. Apostema he calleth a great tumor

in

in whych the matter (whereof it spryngeth) doth offende rather in quantitie, then qualitie. pustula he doth make a lesser tumour, in whych the matter dothe hurte by qualitye, rather then quantitie. And thys tumour tharabians call Bothor. the threid, whiche Guido nameth Exitura: is that whiche the Grecians doe properly cal Apostema, & the latinistes: Abscessus.

Thomas Gale. But the Grecians doe make differences of tumors, accordynge to the substaunce wherof they doe spryng. so shal ther be but two kyndes of tumors generally. that is to say. humoralis, spryngyng of humors, and flatuosus commynge of wyndye spirites; this Guido termeth Apostema ventosum.

Iohn Yates. And howe many differences is ther of tumors whych do spryng of humors?

Tho. Gale. Twoo, simple, and compounde.

Iohn Yates. Howe many simple be ther?

Iohn Feild. There be also. iy. hote & colde

Iohn Yates. Why are theis tumours called simple and compounde?

Thomas Gale. They are called simple, whan as they sprynge of one sincere humour, with out the mixture of other. and they are called compounde, whan the tumor cometh of two

or more

or more humors.

Iohn Yates. Wherfore are the tumors called hotte, or colde?

Tho. Gale. They are called hotte, because they springe of hoote humours: and named coulde by the lyke reason, because thy are ingendred of could humours.

Iohn Yates. How many hotte tumours be ther, and how many colde?

Iohn Feild. Diuers, and sondrye, as you shall perceyue by the processe of our talke. but the most famous are foure: springynge of the iiij. humours simplye, wyth out the myxture of other of theis two &c.

Iohn Yates. Whiche be thay.

Iohn Feilde. One comyth of blode, and is called Phlegmone, in Englishe, inflamation: an other springeth of coller, and is called Erysipelas, or. S. Anthonies fyer: and theis be hoote tumours. an other cometh of fleume, and is named Oedema: the forth is ingendred of melancholie, and hath to name Scirrhus. This two tumours, are colde, all other simple tumours are aptly reduced to theis. iiij.

Iohn Yates. And what be the compound tumours?

Tho. Gale. They be diuers and varieth ther names accordynge to the mixture of humours.

mo2s. and the humo2 are mixyd, equally, o2 inequally, if they be myxed equally: then the tumour is called Phlegmone and Erysipelas. but yf they be inequallye mixyd, then the tumo2, taketh name of the humo2 whiche surmounteth, as blod surmounting choller, in a tumo2: it is called Phlegmon Erisipelatodes, if fleume be myxed with blode in stede of coller in fo2me as is afo2esayd: then the tumo2 is named phlegmone Oedomatodes, and if blode myxyd with melancholy surmounte it is called Phlegmone scirrhodes. so in lyke case there are. iij. tumo2s whiche take names of the humo2s myxyd with collo2, coller hauynge the dominion as whan blod is wyth collo2 they call the tumo2 Erysipelas Phlegmonosum. If fleume, Erysipelas Oedematosum, and if melancholike then the tumo2 hath to name Erysipelas scirrhosim in lyke maner, fleme hauing dominion in the moisture wyth any of the other thzee humo2s, the tumo2 is firste called Oedema, and then yf coller be mixyd wyth it they adde this wo2de Erysipelatosum. If blode the tumo2 is called Oedema Phlegmonosum, and yf melancholie, then is it namyd Oedema scirrhosum, and to conclude, the lyke is to be sayde of melancholie whan as any of the other. iij. are mixed wyth as scirrhus

Plegma-

Phlegmonosus, scirrhus Erysipelatosus, and Scirrhus Oedematosus: blod, coller or fleume beinge vnequallye mixyd wyth melancholye.

John Yates. What profit insueth to the Chirurgian by knowynge the mixtur of theis humors, in tumors against nature?

John Feilde. Greate profite, for by knowyng the true mixture, he is taught therafter accordingly to vary his medicines. for like as a simple tumour hath a simple cure & is cured by his contrarie: so a compounde tumor hath a compounde cure & is cured by his contrarie. as for the more plainer vnderstandyng, if ỹ tumor be mixyd of fleume and melancholie equallye: then shal you equally mixe suche medicynes together, as are conuenientlye vsed in Oedema and Scirrhus, But if fleume, and melancholie be inequally mixyd: and the greater portion is fleume, then in the composition you must in lyke maner put the greter portion of suche medicynes as you vse in Oedema, and the lesser of suche as are applyed in Scirrhus. and this rule, and precepte is to be diligently observed in all compounde sycknes. and for because the mixture of theis tumors, is so necessarie for a Chirurgian, as you maye righte well perceyue by that whiche is nowe spoken: beholde this table which showeth you all the mixture and names

of tumors against nature. Which for the great profit wolde be commytted to Memorye, of him that wil haue the Methode of curyng cõpounde tumors against nature.

Iohn Yates. You promysed to shewe the tumors which are refered to the .iiij. principall simple tumors, Phlegmone Erisipelas, œdema: and scirrhus.

Iohn Feild. And that we promised, we will performe, first vttering ther names: & that being done, we wil shew you ther definitions. And we wil begin w̃ sanguine tumors, which are referred to Phlegmone: & then procede to the reste. There are referred to phlegmone: Phygethlon, Bubo, Phyma, Dothienes, Anthrax, gargareon, Paristhmia, aneurisma, Gangręna, & Sphacelus.

Iohn Yates. What is Phlegmone?

Tho. Gale. Galen affirmith phlegmone (or as we cal it in English, an inflãmation) to come of the flux of blode by the greater vaines, & arteries, vnto those which are lesser: & frõ them vnto those vaines which are lest of all (which because they are no greater then heres, are) called capillares. These vaines beinge fylled w̃ this contynual flux of blod, part ysswith out be ỹ mouthes of the vaines: & part by ỹ cotes of ỹ same, wherby the voide spaces are filled, inflamed, disten-

ded

ded & ſtreched out. And this tumor galen calleth the inequall intemperature of the muſcle. And note, that there are two kindes of inflammations. One which is called vera inflammatio, & this ſpringeth of good and naturall blode. The other is named Non vera, coming of yll and vnnaturall bloode, and this is common to all inflammations.

Iohn Yates. What cal you Phygethlon?

Tho. Gale. That which Celſus nameth Panus and this tumour is an inflammation of the glandilous partes in the neecke armpites and grine, which yf they be indurated after this inflamation, ther cometh tumors which is named Chœrades in latine ſtrumas and Guido nameth them ſcrofulas and then this tumor is numbred amonge flegmatike tumours. And is wyth vs vſually called the kings euyll: becauſe the kings and Queenes of England (by a diuyne and peculer gyfte of God) doe cure ſuche as are moleſted wyth this infirmitie, whan as no arte of Chirurgerye can take place. And thys diffe-reth muche from that ſyckenes whyche the Latyneſtes name Regium morbum.

Iohn Yates. Wherefore is it called in Greeke Chœras?

Iohn Feilde. Eyther of ſtones apearing

by the Seas, or els of swyne whiche are often vexed wyth this tumor.

John Yates. As touchyng Bubo, Guido calleth it a flegmaticke apostume, wherfore I wyll let that passe vntyll we come to the reasonynge of the same.

Tho. Gale. You seame to accuse vs of errour, or ignorance whan as we shoulde numbre flegmatike apostemes as you cal them amonges sanguine tumours. But I wyll this affirme boldlye that Guido eyther meaneth some other tumor whiche he so calleth: or els he repugneth manifestly wyth Galens authoritie, for Galen maketh Bubo a simple inflammation of the glandelous partes in that flankes.

John Yates. I doe not accuse you but rather shewe you Guido his mynde: which seing that it doth not agree wyth Galenes I muste gyue place and alwaye preferre Galen before Guido. Wherfore I pray you procede with the other inflammations and shewe me what the tumor is whiche the Grekes call Phyma.

Io. Feilde. This tumor is a pushe which wyll presently as yt ware come to suppuration, and it is called Phyma by similitude it hath with puffes or mushrumes springyng oute of the yearth. and ther be two kyndes of theis tumors, one comynge of heate, an other of coulde

but we in this place do nombre onely the hoote tumor amonge inflammotions.

Iohn Yates. Dothienes folowth nexte in order.

Tho. Gale. Dothienes in Greke, is called of Auicenne, Aldemurenul, of Celsus furunculus, with vs a felone or cattes heare, & is a sharpe swllynge wyth inflammation chancing in the fingers with dolour & tourneth to matter spedelye, and theis often haue a feuer ioyned with them.

Iohn Yates. What is Anthrax?

Io. Feild. That same which we cal Carbunculus. and is an vlcerous tumor springyng of grosse melancholycke bloude putrifyed. This tumor folowth greate inflammations, and ther are two kindes of carbuncles. the one more Jentle and benigne: the other pestilential, and mortall, and the carbuncle is both wyth pustles and also without.

Iohn Yates. Guido maketh difference betwirte anthrax and carbunculus.

Tho. Gale. Ther is no difference at all, but that anthrax is a greke worde & Carbunculus a Latyne. For Guidoes difference wher he maketh anthrax a malignant tumor, is no other thing then the pestilential carbuncle. but his diuiuation of the name is more ridiculous where

he saith that Anthrax is said of Antra, whyche he saith signifieth the harte, but in what tungne Antra is used for the hart that he left vnwrittē. sure I am, that it is neyther latyne, Greke, nor arabicke worde.

Io. Yates. Wel then I am herein satisfied touchynge the Carbuncle, what defyne you Gargareon to be?

Iohn Feild. Gargareon called in latyne Columella is an inflammation of vuvla, like as Paristhmia or tonsille are inflamations of the kernelles situated in the beginning of ỹ iawes. Guido & other of his sect call them Amygdalas.

Iohn Yates. Anecurisma is nerte.

Tho. Gale. This tumoure is no other thynge, then a dilatation or rather relaxation of the arteries, whereby the bloode and spirites are dispersed makyng a softe tumour whych beynge pressed, with the fyngers semeth to vanish awaye: but the fyngers taken agayne away, the tumour cometh to his wonted bygnes againe.

Iohn Yates. If you doe in like sort set out what Gangręna & sphacelus are then you haue finyshed all suche tumoures as are referred to Phegmone.

Iohn Feilde. Galen in hys second booke whych he wrotte to his frende Glauco defyneth

Iohn Yates. I thanke you that you will accomplishe my request and desire.

Iohn Feilde. Erysipelas beynge of much affinitie with Phlegmone, called also of the Latinestes ignis sacer, of vs wylde fyre or Saincte Anthonies fyre, is a flure of coller staying aboute the skynne nothyng molesting the flesshe. And it differeth from Phlegmone fyrste that there is no pulsatiue dolour in it, then that in the inflammation of bloode the colour is alwaye redde: in Erysipelas the colour is yelowyshe pale: laste that Phlegmone ys an affecte of the muscules: and Erysipelas is onely of the skynne and thys is to be vnderstande of Verum Erysipelas.

Iohn Yates. Is there any more then one kynde of Erysipelas?

Tho. Gale. Haue you forgottē that which was before rehearsed of compounde tumours? And that there was Erysipelas Phlegmonosum, Oedematosum, and scirrhosum? These be comprehended in dede vnder the name of compounde colloyche tumours or Erysipelas illegittimum.

Iohn Yates. So then you make two kinds of Erysipelas verum: and also illegittimum.

Iohn Feild. It is ryghte so. And that which

gangrenam to be a mortifycation of the member vnconfyrmed, syrynging of greate inflammations. And Sphacelus called of diuers wryters Aschachilos, and of the latinestes syderatio is the eracte and confyrmed mortification of the member.

Iohn Yates, Then by your wordes I gather that bothe Gangrena and Sphacelus folowe after greate inflammations: and that they two differ in this, that Gangrena is as it were in growing and increasing euer more and more towarde mortification of the member: and sphacelus is whan as Gangrena ceasith to corrupte further the member, and that is nowe perfectlye mortifyed and deade voyde of all naturall heate, blode, spirites, and feeling.

Tho. Gale. You haue rightly sayde.

Iohn Yates. Then seyng we haue thus ended suche sanguyne tumoures as are referred to Phlegmone, I praye you in lyke maner procede in the colorycke tumours whyche are of like affinite with Erysipelas?

Tho. Gale. Wee wyll so doe. Vnto Erysipelas are referryd Herpes, Phlyctenę, Epinyctides and Hydroa. But fyrste wee wyl define what Erysipelas is, and then procede to the reste.

whyche is illegittimat or not ryghte Erysipela is also diuided into two kyndes. The one commyng of the groser and thicker sencere collor and is named Erysipelas wyth vlceration and the other is coller hauynge other humoures mixed with it as I saide before.

Iohn Yates. Seynge then that I vnderstande what Erysipelas is, and howe manye kyndes also there are of them: I praye you let me vnderstand what herpes, is for that foloweth nexte in order.

Iohn Feilde. Herpes is that tumour and affection of the skynne whyche Hippocrates so dothe name of corrodyng and deuourynge the skynne: for herpo is that whiche is called in latyne Serpo whereof commeth hérpys quasi serpens. And there is two kyndes of herpes, one called herpes Estiomenos, so called because it eateth and deuoureth: the other is named Cenchros in latyne miliaris for that the tumour is like Millit seade. Iohn Yates. Guido dothe speake of Estiomenus in this wyse. Estiomenus est mors et dissipatio membri: et propter hoc dicitur Estiomenus, quasi hominis hostis, cum putrifactione & mollificatione membri.

Tho. Gale. Where Guido sayth that Estiomenus

stiomenus is the death and dissipation of the membred and for that is called Estiomenus as who shoulde saye the enemye of man, comynge with putrefaction and mollification: I do litle in my Judgement alowe hym, first that he leaueth the princes of Phisicke Hippocrates Galene and Paulus, and folowyth those of smale lernynge and authoritie: and then that he will seame to interprete that tungue in whiche he had small knowledge. for wher dyd he euer red amonge the Grecians that the tumour Estiomenus was confoundyd with Sphacelus, which in dede is the mortification of the membre. and agayn wher lerned he the derivatiõ of Estiomenus to be hominis hostis. But this maye yet seame tolerable in Guido, whan that Auicenne gyuynge occasion of errour to other, comprehendynge both kyndes of herpes, vnder the name of formica, doeth also mooste absurdlye comprehende myrmecias (that is to saye formicas and is a kynde of wartes) vnder the name of herpes and so confoundeth bothe to gether. but this shall suffice touchynge herpes.

John Yates. Then let me lerne what Phlyctenæ are.

John Feilde, Actius in his. xiij. booke and

and .63. chapter sayth that they are pustules comynge of sharpe coller: lyke to the blestres whiche cometh of scaldynge water, and, bryng no vehement dolour or payne, whiche beinge broken ther flowyth oute a yelouse humour, continuynge vnto the third or sometyme forth daye.

Iohn Yates. And what doth theis kinde of pustules differ from those whiche are called Epinictides?

Tho. Gale. Very much. for epinyctides be the moste yll and malignant kynde of pustules. be swarte, and leady in coloure wyth greate and vehement inflammation abought them. and theis beinge opened ther is founde a slympe exulceration in them. this tumor is neuer greater then a beane: and is called Epinyctis because comonlye they spryng in the nyght season, and then moste molesteth the pacient. The Arrabians call this tumour essare, or saire. and Plynie nameth it Pustula lyuens.

Iohn Yates. There yet remayneth those tumours whiche the Grecians doe call Hidroa and the Latinistes Sudamina.

Iohn Feild. Auicene nameth them planta noctis and Rasis Alhasaphum. Theis are certayne colericke pustules

pustule comyng of muche and abundant swette whiche through the sharpnes therof doe craspe-rate and vlcerate the skynne: and thus haue you lerned the most famous and notable colloricke tumors wherfore we wyll nowe conuerte oure talke to suche as are phlegmatike.

Iohn Yates. You do meane suche as are referryd to Oedema do you not?

Tho. Gale. Yes verely and they be called by their names. Atheroma, Steatoma, Meliceris, Hidrocele, Ascites, Leucophlegmatia, chæras, Bronchocele; and Hydrocephalon: and as touchynge Oedema it is thus defyned. Oedema is a tumour softe, lose, and with out dolour or greke, spryngynge of fleume. and it is deuyded into Oedema that is a desease, and into that whiche is symptoma or accident. of this Galen maketh mention in the. xiiij. boke. iij. chap. of his therapeutike methode. the trew Oedema is that whiche folyshly the Barbarous Cirurgians call vndimia.

Iohn Yates. I remembre Guido nameth it both vndimia and also ydemea, and cimia: but let that passe. I pray you set out those three famous apostemes flegmatike whiche you call Atheroma, Steatoma, and meliceris.

Iohn Feilde. This apostheme called in Latyne

Latine abscessus and of Haliabbas, Selaa, of Auicenne Nodi, haue diuers names after that thynge whiche is in euery of them conteyned. For Atheroma whiche is a tumor of like colour on all partes and with out payne and dolour, conteyneth in the neruous cootes a chlyme humour and lyke a pultesse in substaunce. and somtyme there is founde in it heres, skales like bones, & hard thynges as they ware stones. and Steatoma that is to saye adipinus nodus, or a fattye knote or a tumor, is an augmentation of fatnes againste nature gathered in some parte of the bodye. Meliceris or Nodus mellæus, is a rounde tumour harde and voyde of grefe in whiche the neruous coates do conteyne an humour lyke in substance to honye. and all theis iij. effectes are first small and lytle. and so by lytle and litle augmente and ware. and are conteyned wyth in there seuerall sylmes or coates.

Iohn Yates. What defyne you hydrocele to be?

Tho. Gale. Hydrocele is that whiche in Latine is called hernia aquosa or humoralis, and is a tumour springynge of a watrye humoure gathered in the purse of the testicles.

Iohn Yates. And what is ascites?

Iohn Feilde. It is one kynde of the dropsie. and this tumour is whan that a serose humour

is a

is conteyned betwixt the inwarde coate of abdomen and the intestines. This coate is called peritonæum.

Iohn Yates. Leucophlegmatia foloweth next.

Iohn Feild. It is also named Anasarca and hypostarca and is an inequall tumour going through the hole body. this may in my conceypte be aptlye termed an vniuersall œdema of all the bodye, as touchynge cherades we haue spoken amonge sanguine tumours.

Iohn Yates. There yet remayneth two tumours Bronchocele, and hydrocephalon.

Thomas Gale. Bronchocele is a tumour in the throte called also Bocium, & it is a greate and rounde swellynge of the necke betwixt the skynne and aspera arteria, in whiche is conteyned some tyme, flesh, some time like hony, fatnes, or a pultesse. and sometyme sayth Celsus ther are founde hears mixyd with bones also Hydrocephalon is a watry tumour ingendred for the more part in the heades of childzen, or els it come of grosse blode collected in anye parte of the heade, ther be. iij. kyndes of this tumour. one whan the humor is betwixt pia mater and the braine. the seconde whan the humor is collected betwixte the coates and the bones:

the. iij.

the.ij.is betwixt pericranium & the bone, the last is betwixt the skynne & the bone. & thus we haue set out the most notable kindes of flegmatike tumours.

Iohn Yates. Seinge that you haue fynyshed thyce kyndes of tumours sanguine coloricke and flegmatike, nowe I pray you let vspeke of melancholicke in like sorte.

Iohn Feilde. Unto Scirrhus are referred. Cancer, Elephantiasis, Satirasmus Psora lepra, Enchimoma, melasma, varices, sarcocele, Polipus Verruce, acrochordines, myrmeciæ, & suche lyke. and firste we will take oure beginnynge with Scirrhus, you shal note that ther are reconyd of Galen. ij. kyndes of Scirrhus. one that is exquisite. the other not exquisite. The exquisite Scirrhus is definyd to be an harde tumour against nature, with out dolour or felyng and is incurable. The second kynde of Scirrhus is also a tumour againste nature harde, but not al togither insensible and therfore curable. although it be not wyth out difficultie.

Iohn Yates. Nowe seyng I haue lerned what Scirrhus is and also howe manys they are, I prays you procede to Cancer.

Tho

Tho.Gale. Cancer called of the greekans Carcinoma,and Carcinos,is an inequal tumor against nature,horrible to beholde,of swartishe colour and with great payne. It is called cancer of fygure and similitude it hathe wyth the sea crabbe.for like as in that,the feete are on bothe sydes of it: so in this tumour the vaines beyng fylled wyth a grose melancholike humour,they are swolne and discended like as it were the fet of a crabbe or this tumour maye otherwyse be called cancer because it dothe so inseperablye cleaue to the place where as it once is fyrmely fyxed.and there be twoo kyndes of Cancer.one that is wyth vlceration and is called Cancer Vlceratus,an other that is witheute vlceration and is named Cancer Occultus.

Iohn Yates. What is Elephantiasis.

Iohn Feilde. It is an vniuersall Cancer of the body,and is that which the latter writers of the Arabians name Lepra, &. S. Lazarus sycknes: it taketh name of the beaste called an Elephant be cause of the greatnes of the affecte length and roughnes of the skynne. It is also named Leontiasis because of the lose & rugose tumour of the skynne. This sycknes is terrible, contagious and in the number of those infirmities placed whych are contagious.

Tho.Gale. And when thys tumour is but

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Tho. Gale.

An institution
Cancer called of the grecians

yet in the begynninge. it is not called Elephantiasis but Satyriasmis, takynge that appellation of the satyres whome the Poetes describyd to be deformyd and monstrous.

John Yates. Seynge that Elephantiasis is not lepra Grecorum, I pray you; shewe me ther difference.

John Feilde, Galen in his booke of diffinitions doth diffine it in this sorte. lepra is mutation of the skynne into an habite against nature, wyth asperitie and rchyng, colour and skales and occupieth diuers partes of the body. and there is no smal affinitie betwirte lepra and scabies: both being affections of the skynne, both springynge of melancholicke Iuse. and they differ in figure. for lepra occuppeth and deuoureth depely the skynne in rounde figure, and casteth skales like fishe: and scabies called also psora infesthyth rather the vpper parte of the skynne and is diuersly figured.

John Yates, Enchymoma foloweth nert, and melasma.

Tho. Gale. Galen in his booke de tumoribus præter naturam. 10. cap. saith that they are tumours happenyng to olde men throughe the contusion of the vaynes: wherby the bloode flowe out of the coates of the vaynes. of theis some be blacke, some betwirte blacke and redde

in colour. & they come of small & light occasions
John Yates. The next tumours are varices in greke called Cirsous which I take to be ꝑ swelling of the vaines through to great flure ofgrose & melancholike blod. And I haue most comonly sene them in the shankes and testicles.
John Feilde. And those be the proper places for this tumour: lyke as the two tumors nexte folowynge sarcosele and Polypus haue ther peculier partes which they doe infest, as sarcosele is a fleshye tumour growynge in the testicles, and is called in Latine hernia carnosa: the other is a fleshye branche springynge in the nosthrilles, and letteth the operation of the same. and it taketh name of a fyshe called Polypus. for lyke as that fyshe hath many legges, so also hath this tumour manye rootes wherby it cleueth and groweth to the nosthrelles.
Tho. Gale. It is right so, and verruca whiche is nexte in order, is a certayne tumour apperinge in the vppermost parte of the skynne it is named with vs a warte, of this sorte be acrochordones, and myrmeciæ. Acrochordon is a rounde warte hangyng as it ware by a threde and therof taketh name. and is called in Latyne verruca pensilis. and myrmecia is also a kynde of wartes whyche groweth deper and is hard and fyred to the skynne, narowe aboue,

and

and brode beneth, prouokyng dolour and paine and is blacke in colour. and thus haue we finished and declared vnto you all the notable tumours whiche are referred to the. iiij. simple Phlegmone, Erysipelas, Oedema, and Scirrhus.

John Yates. Yet amonge all theis I here you make no mention of morbus, whiche I thyncke is to be numbred amonge tumours against nature?

John Feild. I do not well understande your meanynge, for manye a tumour is called morbus. for morbus is a Latine woyde, and all sycknes and infirmyties be called morbi

Iohn Yates. Yea but I meane that scabbe whiche the common Chirurgians calleth the morbus, and the morbus cause, and the better lerned nameth it morbus gallici

Tho. Gale. It it is a great thynge to be trayned vp in ignorannce or Barbarous doctrine at the first, for euer after do what you can they will haue some tast therof, as right excellently the Poete Horatius said.

Quo semel imbuta recens seruabit odorem.
Testa diu &c.

Whiche is as muche in effecte to be vttered in our vsuall language as

VVith vvhat thou first filste thy vessell.
Of the same longe time it vvyll smell.

And this may right well be verifyed wyth those of our tyme: one rude Emperike called it the morbus and a numbre foloweth hym in his folly. and an other because he wolde seme connynger then the rest, wyth as muche ignozance nameth it morbus, Gallici brekynge the olde Pzicians head, and yet wil not, oz can not gyue hym a plaster. But if you will vse that vsuall name you might haue named it morbus Gallicus, or Lues venerea, and so haue obserued cõgruitie in spekyng. but as touchyng the names of that contagious infirmitie, which is vsually named mozbus gallicus: In my opinion they all doe nothyng expzesse the nature of the syckncs. and lyke as the authozs, whiche wzight of it varieth in the names: so do they both in knowyng the diseace, and cure of the same.

Iohn Yates. What then shall I pzoperlye call it?

Iohn Feild. That same that Maister Doctour Cunyngham hath inuented a similitudine cum chamęleonte bestiola. That is he calleth it Chamęleontiasis. the reasons hereof, the definition, cause, signes, pzognostications, t newe kynde of curation, he hath expzessed in a booke

booke therof wrytten, whiche I truste he wyll hereafter publisshe.

Iohn Yates. And dothe he not numbre chameleontiasis amonge tumours against nature?

Tho. Gale. Nothynge lesse, for he accompteth all those tumours, swellyng, knottes, vlcers, and suche like infesting the body of man; but as accidents, and no parte of the infirmitie, neyther laboureth he so muche in theis as in expellynge the sickness whiche bryngeth forth theis accidentes. for theis are to be remoued with out difficultie or great trauayle.

Iohn Yates. I iudge his newe inuented way of curation to be extreme and dangerous to the pacient. for both the fumes, vnguents, and strayte order of diet with the wood, are wel knowen to be dangerous, and yet many tymes doeth not that whiche they promise. but yet yf his way be perfite it is the more to be likyd and he worthy prayse.

Iohn Feild. His waye is voyde of danger, easie to the pacient, exacte also and perfite.

Iohn Yates. Seinge then that Chamæleontiasis vulgarlye termyd morbus gallicus is not to be numbred amonge tumours againste nature I pray you procede to the other parte of your diuision, for I remembre that you sayde

ther ware. iij. kyndes of tumours, the firste you called humoralis because it doth springe of humours. the second ventosus, for that it is ingendryd of spirites. The third you termyd. tumour varius, because they hae mixyd causis. somtyme of humours and spirites myxyd, and somtyme of other causes. Wherfor I pray you nowe let me lerne how many tumors are referryd to ventosus tumour.

Tho. Gale, The most famous are two. Tympanites and priapismus.

Iohn Yates. What is tympanites?

Tho, Gale. That whiche Hippocrates nameth a dye dropsie. and is a tumour springynge of wyndye spirites, collected betwixt peritoneum and the intestines. and if you smite the body of the patient herid wyth this tumour it will gyue forth a sounde lyke to the tympanie and hereof it first toke name.

Iohn Yates. And what tumour is that whiche is callyd Priapismus?

Iohn Feilde, Priapismus is a tumour of the yarde, wherby it is destēdyd out in length and breth through vaporous spirites fillyng the nerue called neruus cauernosus constituens colis substantiam.

Iohn Yates. There yet remayneth to

spe[illegible]

to speke of those tumours which you terme tumores varios.

Tho Gale. Ther doe so as you saye. and theis be the notablest of those tumours. vitiligo, exanthemata, parotides, mentagra, Epiplocele, Enterocele, Enteroepiplocele, Bubonocele, exomphalos, Arthritis, podagra. Chiragra.

Iohn Yates. What call you vitiligo.

Iohn Feild. If you will generallye take it, it signifyeth a foulnes and staynynge of the skynne, coming of the yl disposition of the parte, whiche can not make good assimulation of the nourishement. and ther be two kyndes of this tumor, the one named in greke Leucæ of the Arabians Albaras, and in Latine vitiligo alba whiche is a mutation of the skynne in to more whightnes. the other is named alphos, and of Auicenne morphea, and we vsuallye cal it the morphew. and ther are two kyndes of morphew, the one whight called of Celsus Leuca Alphos, the other blacke. and he termeth it mela. and alphos, is deriuyd of this Greke verbe Alphenein, whiche signifyeth to alter or change. and so doth the morpheu alter & change the coulour of the skynne.

John Yates. And what tumors are those whiche the grekes do cal exanthemata?

Tho Gale. They be pustules and tumours breaking out of the skinne, bringing with them feuers and manye other accidentes. And there are two sortes of them: one hygher springing of thimne and cholorike bloode, the other broader and commeth of melancholike and grose blode. the fyrst kynde we call the small pockes, in Latine Morbilli, the other the measelles, Variolę in Latyne.

Iohn Yates. Parotides folowethe nexte in order.

Io. Feilde. Parotides be inflammations whych happen to the karnelles that are behynd the eares. And they springe sometime of sincere bloode, sometyme of scume, sometyme of choller, and sometyme of melancholie. And herein note the prouidence of nature. For she hathe made the rare and lose partes called karnelles to be as emunctories for the noble partes. As the karnelles behynde the eares, serue to the brayne. Under the armpittes seruynge to the spirituall members. And the karnelles in the gryne doth receyue the superfluities that commeth from the liuer, whan as it doth exonerate and purge it selfe, and this is moste manifest in pestilentiall constitutions in whyche theys noble members thrust and expell the benome to there purgien places.

Iohn

Iohn Yates. As for Mentagra you nede not to speake of, for I knowe rycht well, it is no other thynge then Morbus gallicus, or Chameleontiasis, as the booke bearynge the name of Mentagra doth testifye.

Tho. Gale. And yet bothe you and the authour of that booke doe herein myſſe the quishynge, as suer as you make your selfe of thys. For thys tumour whych Plinius calleth Mentagra, & impetigo in Greeke Leichin sprangs first amõg the Italians in the time of Tiberius and is a deformitie of the skynne beginnyng for the more parte at the chynne and wyll spedelye turne into lepre and caste of skales lyke fyshe. And Galen wytnesse in the v. boke & v. Chap. Secundum loca. That impetigo wyl turne into Lepram. Therefore what difference is betwixt Mentagra and Chameleontiasis it is easely conceyued, the one hauing Causam occultam as I may terme it, and the other manifestam.

Iohn Yates. And what Iudge you epiplocele to be.

Iohn Feild. I wyll not onelye speake of that, but also of thother kindes of hernia, which folowe th nexte. And fyrste you must note that epiplocele is a Greeke worde compounde of epeplcon

epiploon whiche the latinestes call Omentum and we name it the caule, and cele which signifieth ramex or hernia. So that epiplocele is a tumor comyng whan as omentum falleth in to the purse of the testicles. And by the lyke reason Enterocele taketh name, when as the intestines falleth into the forsayde place. And Enteroepiplocele folowth whan as bothe Omentum and the intestines fall in scrotum, or purse of the testicles. Furthermore Bubonocele is a tumor called in latyne inguinis ramex and happeth whan as Peritoneum is ruptured or wounded by the flankes. Exomphalos is a tumour perteining to the ouertwart muscules of abdomen, which being relaxed ther folowth a sterting or empynency of the nauel.

Tho. Gale. My brother Yates doth the rediely conceyue the differences of these kynde of Hernia, for that he hathe a peculer waye of curyng some of them, especiallye of Enterocele or Hernia intestinalis, as Guido tearmeth it wherefore we wyl no lenger stande in vttering the differences of them, but procede to arthritis Podagra & Chiragra. For I thynke the daye wyll scarslye suffyce to declare, that whyche yet remayneth, and therefore as touchynge Arthritis you shall note and consyder that it

is a

is a tumour commyng of the flure of humors into the Joyntes: and is named in Latyne morbus articularis. And so is thys tumour common to all the Joyntes of the bodye except it be the handes and the feete.

Iohn Feilde. Yea for yf thys flure happeneth to the handes, it is named Chiragra. And yf to the feete, then it is called properly of the place, Podagra.

Iohn Yates. Theys dyseases of the Joyntes be greuous and paynefull, haue they no other cause but the flux of humours?

Tho. Gale The flure of humours is but the interne or antecedente cause, whyche commeth of the primatyue, but it is no part of our myndes to sette out eyther the causes sygnes, or curation, of tumours, seynge that wee haue done that in ourc booke of the methodicall cure of tumours agaynst nature.

Iohn Yates. Seynge that you haue nowe spoken of all the notable and famous tumours agaynste nature, I praye you turne your talke to woundes, whyche Auicenne and those that folow him calleth Plaga.

Iohn Feilde. Before we enter further herein to sette oute the differences of woundes, it is conuenente to knowe what a

wounde

wounde is. and the moste parte of writers doe agree that a wounde is the solution of continuitie newly made in the partes of the bodye with out putrifaction or matter.

Tho. Gale. Yea for whan as putrefation or matter doth folowe, then it lenyth the name of a wounde and is called an vlcer.

Iohn Yates. And maye a wounde degenerat into an vlcer?

Tho. Gale. Yea for sothe, and so dothe moofte partes of woundes especiallye if they be greate and in suche partes as may not be cured wyth balmes.

Iohn Yates. And howe many differences be ther of woundes?

Iohn Feild. Many, but the chefe & principal and that also are necessarie, are numbred to be three, and we wyll showe you wherof the differences spryngе.

Iohn Yates. Doe you so.

Thomas Gale. Guido and other famous writers of his tyme, taketh the difference of woundee of three thynges. The firste is taken of the nature of the parte, in which the wounde is made. The seconde difference spryngeth of the substaunce or essence of the solution of continuitie. The thirde difference spryngeth of the difference of the diuisiõ, or solutiõ of cõtinuitie.

Iohn

John Yates. And howe are the woundes called. those difference cometh of the nature of the parte in whiche that wounde is.

John Feild. It is called a woundein the similer parte, and a wounde in the instrumentall parte.

John Yates. Then to knowe theis woundes exactly it doth behoue to knowe theis partes of the body whyche you called similer, and instrumental.

Tho Gale. It doeth right so. and it is called a similer parte because it is simple and may be deuided in to like partes. and that also whiche is required to the constitution of the organicke or instrumentall partes. Suche partes of the bodye are flesh, fatnes, arterye vayne nerue, tendon, ligament, bone, and such like. & those be named instrumentall partes, whiche are made of theis simple or similer partes. And the instrumentall partes are the heade, eye, nose, tungue, harte, lyuer, longues, armes, feets, and a greate numbre of suche lyke, and euery of theis partes haue ther seuerall vse and office, as more largelye appeareth in the booke of Galen intituled de vsu p rtium.

John Yates. And howe manye sondrye woundes are ther in the similer partes.

Iohn Feild. Ther be three, whiche are

taken

taken of the substaunce of the similer partes. for it maye be in the similer parte whyche is softe as woundes made in the fleeshe, and fattenes, or elles in the harde symiler parte, as woundes in the bones, or fynally it maye happen to the meane similer parte, whyche is neyther harde nor yet softe, suche be those woundes in the vaynes arteries nerues tendons & ligamentes.

John Yates. And what difference is there of the woundes in the organike or instrumentall partes?

Tho. Gale, There is a threefoulde difference of those woundes accordyng to the parte affected. For eyther the wounde is made in the principall partes, as in the harte, lyuer, or brayne: or els in those partes whych serue theis principal partes, as woundes in Aspera arteria, the throte, and bladder. Or it is in the organike partes which are not seruisable, to anye of the principall, as woundes happenynge in the nose, eye, eare, hand, foote, and such like.

John Yates. Then there be fyre differences of woundes taken of the nature of the parte, three in the simpler, and three lyke wyse in the instrumentall partes. Nowe lette me vnderstande the difference of woundes taken of the essence of the solution of continuitie.

John Feilde, There is a twofoulde differ-

rance

rence. for eyther it is a symple wounde, or elles it is a componnde wounde.

Iohn Yates. What is a simple wounde?

Iohn Feilde. A symple wounde is solution of continuitie, newlye made beynge voyde of accydentes or other affectes wyth it complycated and ioyned.

Iohn Yates. And what is a compounde wounde?

Tho. Gale. The contrarye to a simple wounde. For it is solution of continuitie hauynge one or more affectes and accidentes complicated and Joyned with it.

ohn Yates. You haue nowe showed two kyndes of woundes the one taken of the nature of the wonnded parte, the other of the essence of the solution of continuitye, there yet remayneth to set oute, such as springe of the proper difference of solutiou of continuitie.

Tho. Gale. There doth so as you saye. And the proper differences are taken of twoo thynges. That is to weete of the quantity and of the fygure?

Iohn Yates. And howe be the woundes named, whyche haue there dyfference of qnantitye.

Tho. Gale. They are called by these names. a great or litle wounde; a long or shorte

wounde

wounde: a brode or narrowe wounde, a deape or shalowe wounde; and an equall or els an inequall wounde.

Iohn Yates. And how be those woundes named whiche are taken of the figure of the wounde?

Iohn Feilde. They be thus termed. a right wounde an obliquike or croked wounde, and a retorte wounde. There are besides theis three principall differences of woundes: other woundes, although they be not proper. as a wounde disrupted or broken, a wounde whiche is cutte, a wounde partlye broken, and partlye cutte: also, a wounde in the begynnyng, middes or ende of a muscle, and suche like, but theis differences alredye numbred shall suffice, as touchynge the Institution of a Chirurgian in this parte.

Iohn Yates. I suppose no lesse. but what vtilitie springeth by knowing theis differences of woundes?

Tho. Gale. Right great, for you shall not rightlye and methodicallye cure them, excepte you knowe ther differences. For of them is taken the prognostications, the intentions curatiue, the inuention of medicines, and maner of curation. for you wyll not a like prognosticate lyfe & death to the pacientes, of a simple

and

and wounde made in the fleshe. and of a greate wounde made in the ventricules of the brayne.

Iohn Yates. That is verelye so, for the one is with out perill and danger, and the other ouer mortall and deadlye. Although Galen affirmeth that his maister Pelops yet beynge a lyue) he sawe a younge man wounded in one of the former ventricles of the braine, and that he was restored to helthe.

Iohn Feild. In dede those woundes for the more parte are deadlye. and wher as Galen in his. viij. booke de vsu partium, reherseth that historie, he maketh it miraculous, and that the yonge man came to helth, rather by the goodnes of God then helpe of art. But let vs retorne from whense we are digressed. A grene and shalow wounde voyde of accidentes, haue not the same curatiue intentions, that a deape and holowe wounde hath, with whiche is also annexed inflamation, flux, dolour, and payne.

Iohn Yates. That is more clearer then sonne at myd day, as the sayng goeth.

Tho. Gale. And touchinge the inuention of medicynes howe saye you, wyll you inuent like for woundes in the nerues and ligamentes, that you wyll for those in the fleshe: or in woundes of the brayne, that you wyll in woundes of the handes:

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Iohn Yates. Moverelye, nor I thynke none so rude that will so offende.

Iohn Feilde. I pray God ther be not. but to the right vse of medicines taken of ỹ difference of woũdes, wolde you in a wounde in whiche is inflammation, and deperdition and losse of fleshe, aplye incarnatiues to ceasle inflammation or contrarye wyse?

Iohn Yates. That ware a pointe of extreme demency and madnes.

Tho. Gale. Well then this last vtilitie springing of the difference of woundes showeth you howe to aply your medicynes, and whan also, whiche must be first, and whiche nexte.

Iohn Yates. No man can that denye. Wherefore seinge, that we haue passed ouer the differences of woundes, it followeth nexte in order that we doe procede to vlcers.

Iohn Feilde. And that you may the better vnderstande those thynges whiche hereafter shall folowe, it is requisite to lerne firste what an vlcer is.

Iohn Yates. Then I praye you define what an vlcer is.

Iohn Feild. An vlcer is defyned to be the solution of vnitie in the fleshye partes, hauyng more dispositions lettynge and hinderinge the adglutination of the same, of whiche cometh

matter

matter, and other lyke fylthines.

Tho. Gale. You may also briefly define it, folowyng Auicen, in this maner. an vlcer is the solution of continuitie made in the flesshe, conteynyng matter and pus.

Iohn Yates. And whereof are vlcers ingendred?

Tho. Gale. They spring of woundes yl handled, of pustules, and apostumes comyng to vlceration.

Iohn Yates. And doeth vlcers spryng of woundes?

Iohn Feild. They doe: for whan as a wounde doeth ons conteyne matter, it is no more called a wounde, but an vlcer.

Iohn Yates. How many kynde of vlcers be they?

Thomas Gale. Ther be two kyndes, a simple vlcer, and a compound.

Iohn Yates. And what is a simple vlcer?

Tho. Gale. A simple vlcer is a solution of continuitie, wyth matter, voyde of accidents and complication with other affectes. and here you must note accordynge to our suppositio, that whan I saye a simple vlcer, I meane not one simple infirmitie or sycknes: for I am not ignorant that euery vlcer doth consist of intemperatnes, solution of continuitie, and som-

tyme also of yll composition. And therfore whan I speke of a simple vlcer, I meane that whiche is opposite or contrary to that vlcere, whiche is complicated with many affectes.

Iohn Yates. Then by youre wordes I gather, that a compounde vlcer is solution of continuitie in the fleshe hauynge matter, and diuers affectes with it ioyned. Nowe I praye you let me vnderstande howe many differencis there be of vlcers.

Iohn Feilde, The most notable vlcers are.vj.in numbre.

Iohn Yates. Whiche be they?

Iohn Feilde. Their names in Latine be theis vlcus sanioſum, virulentum, ſordidum, cauernoſum, putridum & corrodens. And we must by circunlocution make them playne vnto you, for the defecte of apte wordes in our language.

Iohn Yates. And can theis haue no other names?

Tho. Gale. Yes forſoth.

Iohn Yates. Howe many wayes?

Tho. Gale. Fiue principall wayes.

Iohn Yates. Whiche are they?

Tho. Gale. Firſte an vlcer may be named of humours, nexte of ſanies or matter, then

then of accidentes, after of the sycknes, last, of stabilitude with some lyuinge thyng.

Iohn Yates. Whiche waye name you vlcers of humours?

Iohn Feild. Those whiche springe of blode are called sanguine, of choller, cholorickc, of fleume flegmatickc, and of melancholie, melancholickc.

Iohn Yates. And howe are they called whiche come of sanies or matter.

Tho. Gale. You muste note that vlcers be named of sanies, foure sundry wayes.

Iohn Yates. Howe so?

Tho. Gale. Because sanies is called by foure names,

Iohn Yates. Whiche be they?

Tho. Gale. Sanies, pus, sordicies, and virulentia, and hereof cometh that of sanies, the vlcer is named a sanious vlcer, of pus, a purulent vlcer, of sordicies, a felthie vlcer, and of virulentia, the vlcer is named a virulent vlcer.

Iohn Yates. Before you procede further here in, I praye you define me what sanies or matter is.

Iohn Feild. Sanies is a norishement corrupte, whiche nature coulde not digeste. and note that ther is twoo kyndes of sanies, good and laudable, and also yll and nought.

Iohn Yates. What call you good matter or sanies?

Iohn Feild. It is called good whan as it is whight in coulour, lyght and equall, voyde of stincke and horrible smell, and is also digested.

Iohn Yates. And what define you yll matter or sanies?

Iohn Feilde. It is that whiche is contrary to the good. A corrupte norishement in which the substance is inequall, indigested, yll smellinge, and diuersly discolored.

Iohn Yates. What is that you call pus, of whiche the vlcer is named purulent.

Tho. Gale. It is yll matter or sanies commynge of norishement and superfluites of the weke membre, whiche tendeth to corruption, throughe the naturall heate altered into an vnnaturall state.

Iohn Yates. I praye you let me learne what virus is.

Tho. Gale. It is subtile and thinne sharpe sanies, ingendred of thinne watry humours, whiche throughe the aboundaunce, the heate can not digest and ouercome.

Iohn Yates. Ther yet remayneth to speke of that kynde of sanies whiche you called sordicies.

Iohn

John Feilde. It is grosse matter ingendred of the grosnes of humours.

John Yates. Well, nowe retorne againe to the names and appellations of vlcers. Howe I praye you are vlcers called after accidentes, whiche the grekes cal Symptomata?

Tho. Gale. It is called of corrosion a corrodynge vlcer, in greke Phagedenicum, of putrifaction vlcus putridum, of dolour and payne, it is called vlcus doloroſum.

John Yates. And howis the vlcer called of sycknes.

John Feild. It is called in this maner of cancer a cancerous vlcer, so in like maner of fistula the vlcers is called fistuloſum or vlcer fystulate.

John Yates. Seing you are come to that talke of a fistula in knowledge of which, & also exacte curation you are not a litle commended; I pray you define what a fistula is.

John Feilde. It is an holow and depe vlcer haupnge a straight orifice. and the halownes of the same is harde, out of which many tymes floweth matter, & the fistula hath manye denominations accordyng to the place in which it is, for whan it happeneth only in ỹ flesshe, it is

called fistula carnosa, in the vaines venosa, in the arteries: arteriosa: in the nerues or senowes neruosa, in the cartilagies cartilaginosa in the muscules musculosa, in the bones ossea, and also of teares and droppis whiche it putteth fourth, it is namyd fistula lachrimalis, so in Ano it is called fistula Ani.

Iohn Yates. Well nowe turne we againe to the last parte of the deuision and showe me howe vlcers are called of similitude.

Tho. Gale. I will, the ante or phishmere in Latine formica crepeth and maketh holes. and of like sorte, the vlcer whiche crepith and maketh manye holes in mans bodye, is hereof termed formicosa vlcus. and also of the holow caues of the grounde called cauernæ, the holow vlcer is named cauernosum: and so in like sorte of other thinges, for of the similitude the vlcer taketh name.

Iohn Yates. I here you not make anye mention of those famous and notable vlcers called Teliphea and Chironia vlcera. neyther can they be comprehended vnder any of the. vj. principal kyndes of vlcers.

Tho. Gale. Yes forsoth, but Galen whō I folow, accompteth those differences of Teliphea and Chironia vlcera, superfluous, and be

comprehen-

comprehendeth them vnder the name of phagedenicum, or corrodens vlcus. Therfore we may aptly place them among corrodyng vlcers, whiche is the syxte kynd of the notable vlceres before rehersed.

Iohn Yates. And be all theis kyndes of vlcers of like facilitie in curyng?

Iohn Feild. No verely, for ther be some which are easelie cured, & other also whiche will hardlye or not with out great difficultie receiue curation.

Iohn Yates. Whiche be those that wyll easelye be cured?

Iohn Feild. Such vlcers as happen in persons of good complexions, whose bodies are norished with good blode, & haue no abundance of superfluous moistnes. for Auicene saith that in bodyes of the beste complexion, the vlcers are more spedely healed.

Iohn Yates. Whiche vlcers are harde to be cured?

Tho. Gale. All those vlcers whiche followeth after any sycknes.

Iohn Yates Wherfore shold those vlcers be so rebellious, and hard to receyue curation?

Tho. Gale. Bycause nature doeth exonerat & vnburthen her selfe of the dregges and reliquies of yll, and vicious humours.

Iohn

Iohn Yates. Are ther no other vlcers; but theis that be harde to cure?

Iohn Feilde. Yes, and suche be all vlcers whiche happen to persons hauyng accidentaly there bodyes most or drye.

Iohn Yates. Gyue me an example of those bodies whiche accidentally are moyst.

Ihon Feilde. You nede no other example to set before youre eyes, then persons hauynge dropsies, and women with childe. where vlcers happen in such bodyes they, wil not cicatrize because of aboundance of superfluous moysture.

Iohn Yates. I thynke it so. But if that the greate moystnes, do let the vlcer to be cured: thē in bodies that be drie, it folowеth the vlcers to be easelye healed. Howe happeneth it, therfore that you affirme vlcers in drie bodyes to be harde of curation?

Iohn Feild. And yet in theyse my wordes I do not committe anye errour. For I speake not simplye of all drie bodies: but of those that ware drie accidentally. suche be the bodyes of them that haue hecticke feuers, and marasmus. In theis the vlcers, for defecte of good bloode can not consolidate: but with greate difficultye.

Tho. Gale. And you haue also the lyke example in olde men whose vlcers wyll hardly

receyue

receyue cure for the defecte of good blood, they beinge not able, for the imbecillitie of naturall heate) to concocte and digest, ther meate.

Iohn Yates. Then by your wordes I do fynde: that in three sortes of people the vlcers will not wyth out difficultie be cured, that is to say in those, where vlcers foloweth greate sickenes, and in bodyes whiche are accidently moist, and those also which are likewise drie. Now before we fynishe oure talke of vlcers, I wolde learne of you what putrifaction, corrosion, and digestion is. the knowledge of theis is ryght profitable in vlcers.

Iohn Eeilde. It is so, and note that, putrifaction accordynge to oure Authors Chirurgians, is defined to be a transmutation of the hole substance of the bodye or parte of the same, springynge of outwarde and vnnaturall heate: whiche beinge contrarye and deadlye ennemy, to naturall heate, doeth corrupte, and destroye the same.

Tho. Gale. And corrosion is a consumption of the flesche whiche cometh through sharpe humours, whiche resolueth consumeth & dryeth the substance of the norished part: which being resolued the substance of the flesh is diminished and vlcerated.

Iohn Yates. Theis two, putrifaction and corrosion seameth to be as you say, although. for

want

want of naturall Philosophie I can not herein iudge, but it behoueth the lerner alwayes to beleue and credit the teacher; but what is digestion?

Iohn Feild. Digestion is taken in twoo wayes, one waye it is taken for an orderly distribution of the worke of naturall heate made for the augmentation and norishement of the partes. The other waye it is a disposition of naturall heate ordayned to the preperation of huhumours wherby the humours are made redie to be thrust oute by the vertue expulsiue. and this last awaye is that whiche the Chirurgian ought to consyder.

Iohn Yates. Now you haue thus finished tumors against nature, woundes, and vlcers, it is tyme to intreate of fractures. Wherefore I praie you let vnderstande what a fracture it.

Tho. Gale. A fracture called in Greeke Catagma is a solution of continuitie made in the bone. But the later grecians as Actius and Paulus nameth a fracture, the diuision of the bone or els rupturynge or breakyng of the same or any solution of the bone violentlye comyng of any outwarde cause.

Iohn Feild. Yet Guido de Caulico and other of hys tyme defyneth a fracture to be solution of continuitie of the bone not comming

of euery

of euery cause, but only whan as it commeth of contusion, and thys difference he putteth, for that sayth he a bone broken and a bone cut may be knowen a sonder. For because a cut bone is not to be properlye named a fracture, but rather a wounde in the bone.

John Yates. There is no greate repugnancie amonge them neyther let vs be curious aboute wordes, so the thynge whereof we intreate maye be euident and plaine. Wherfore I praye you showe me nowe how many kindes there be of fractures.

Tho. Gale, There be twoo kyndes of fractures. a simple fracture, and a compound.

John Yates. What is a simple fracture?

John Feilde. A symple fracture is solution or diuision of continuitie made in the bone wythout any other affecte ioyned with it.

John Yates, What is a compounde fracture?

John Feilde. It is also a solution of vnity made in the bone hauyng one or more affectes to it connected and ioyned.

John Yates. How manye differences be there of fractures?

Tho. Gale. You must note that lyke as there be symple and compounde fractures, so in lyke maner there be differences of fractures both

both symple and compounde. Wherefore lette me knowe of whych fracture you woulde know the difference.

Iohn Yates. I woulde ryght gladly vnderstand all the differences, although for want of knowledge I can not orderlye demaunde of you. Wherefore, I praye you fyrst to begynne with the differencies of symple fractures, and then to the compounde.

Thomas Gale. That we wyll gladly, and fyrste it behoueth you to consider that there be manye and diuers kyndes of symple fractures. For some fractures are ouerthwart and diuides the bone in sonder and they are three, Cauledon Raphanidon, Sicyedon, that is to say the bones are broken like vnto the similitude of stalkes of herbes, radish, or cucumers. There are besides theis fissures or ryftes made in the bone longwyse called in Greeke Schidacidon. Also there is an other kynde of symple fractures whan as the bone is broken into manye small and lyttle peeces, and this is named Alphitidon. Theis be the principall differences of simple fractures.

Iohn Yates. And what are the differences of compound fractures?

Iohn Feilde. The chefe and notable being accompanyed with sycknes and accidents are theis. a fracture with a wounde, a fracture

hauinge

hauinge wyth hym ioyned gangręna, a fracture with inflamation, a fracture with dolour and payne, a fracture with cõtusion, a fracture with callus to muche increased and growne, a fracture with to muche dryenes, and also hardnes of callus, and a fracture with superfluous moysture of callus, and suche like.

John Yates. Are ther no other kyndes of fractures besides theis two simple and compounde?

Tho. Gale. There be no other proper kyndes, for of necessitie, it must be eyther simple or compounde, and Galen maketh but twoo kyndes of simple fractures, a fracture made secundum longitudinem, and a fracture made per transuersum. But Cornelius Celsus addeth the thirde difference to it: his wordes are theis lib. 8. cap. 7. omne os, modò rectum, vt lignum in longitudinem finditur, modò frangitur transuersum, interdum obliquum, &c. Whiche is as muche to saye, as euery bone is fractured eyther in length as woode cleauen, eyther it is broken ouerthwarte, and some tyme it is fractured oblique or crokid.

John Yates. Albucasis nameth other kindes as fracture in cranio, a fracture in the Jawes, a fracture in the nose, a fracture of the spine of the backe, a fracture of ỹ sossiles, & so of other bones.

John

so of other bones,

Iohn Feild. He doth right so as you say, but in my opinion theis be no differences of fractures: but rather noteth the parte affected

Tho. Gale. That is moste manyfest and hereof we haue spoken in oure Enchiridion of Chirurgery, more at large, where we set oute the differences of fractures, and the eracte maner of curinge them. But becaase you may the suerer beare theis differences of fractures seurer in memorye, behoulde this table which setteth out all the diuisions of them, and if you take paynes to comitte them to memorye, then you haue in effect the whole theoricke of solution of continuitie, made in the harder partes of mans bodye.

Iohn Yates. I thanke you syr, and I will not omit the greate profit, whiche wyll folowe for the present payne. For the gaine wyll remayne, whan at the payne shalbe quite forgotton. Nowe for the tyme of the daye whiche yet remayneth: finishe lurations, and what els you thynke conuenient, for the institution of a Chirurgian.

Iohn Feilde. We wyll accomplishe your requeste, and first note that a luxation or dislocation (which the grecians also call exarthrema) is a displacynge of the ioynte, and mouyng of it out of

out of this natural seate into an other place vnacustomed wherby the voluntarie motion of the same is hindred.

Tho. Gale. And this luxation is eyther perfit as whan the bones are quite diuided, and put a sondre, or els it is an imperfecte luxation, whan the Joint is but only wrasted, and not altogether dislocated, this the Grecians call pararthrema.

John Yates. Howe many kyndes of luxations are ther?

John Feilde. There be twoo kyndes of luxations, a simple luxation with whiche there is no other affecte ioyned: and a compounde luxation haupnge one or more effectes to it connected and complicated.

John Yates. What effectes be those whiche are ioyned with compounde luxations, or rather to speake properlye, what effectes doe make the luxation compounde?

Tho. Gale. The most comon are theis, a luxation with a fracture, a luxation wyth Pleghmone, a luxation with a wounde, a luxation with dolour, a luxation with hardnes, a luxation with flure, and so in lyke sorte you mays numbre other effectes, as they are with the luxation connected,

Iohn Yates. You haue nowe fynished youre talke touchynge the definitions and differences of tumours against nature, woundes, vlcers, fractures and last of luxations. & among the rest you make three of them, to be solutions of continuitie, that is to say, woundes, vlcers and fractures: I praye you aunswere me, be ther no more kyndes of solution of continuitie then theis?

Iohn Feild. Ther is no solution of continuitie: but is comprehended vnder one of theis three. as you maye perceyue by the differences of solution of vnitie, set out in the. iiij. booke of Galens therapeutike methode.

Iohn Yates. I praye you reherse those differencies.

Iohn Feild. Ther is a solution of continuitie, left in the fleshye parte after a wounde called Thrauma. Ther is a solution called Helcos, wher as ther is an vlcer in the flesh, there is solution of vnitie in the bone named catagma. also spasma is a solution of continuitie in the nerue by conuulsion or distension, Apospasma is lyke wyse in the lygaments. Rhegma is a rupture of the flesh. There is also a solution of continuitie called contusion, in Greeke, Thlasma, and is properlye in the vesselles.

Theis

Theis are the principall kyndes of solution. But nowe seinge we haue plainly made discourse of all suche sycknes, as fall vnder that portion of the that curatiue parte, which is called Chirurgirye, whereby you are taught to applye contrarie remedies, for the expellynge of the fornamed greses: it is requisite to vnderstande the operations, whiche a Chirurgian muste vse in obteynynge his desired scope: I meane in restorynge helth to his patient.

Iohn Yates. I praye you then let me lerne what those operations are.

Iohn Feild. They in numbre three. First to diuide or separate the continuitie. secondly, to vnite and ioyne together, that is diuided and seperated. and laste of all to take awaye that is superfluous.

Tho. Gale. And we diuide the continuitie, by makynge incision, letynge of blood, and scarification: where as neade requireth. as also we vnite and ioyne to gether, that is deuided whan as we consolidate and conglutinate woũdes, whan as we heale factured bones causyng callus to growe out the fracture, & whan we repose and put bones lurated and dislocated into the natyue and wounted seate. Last of all we doe take awaye, that whiche is

superfluous whan as we take awaye tumours againste nature.as ganglia, Cancers, nodos, strumas,and wartes called achrocordonas, also takynge the water oute of the bodies of those whiche haue a dropsie: or takyng away the sixte finger or to a of the hande or fote.

Iohn Yates. All this I wyll kepe well in memorye.

Iohn Feild. The Chirurgian must also in theis his operations obserue sixe thynges principally. First, that he doeth it safelye, and that wythout hurte and damage to the pacient. secondly,that he do not detracte tyme or let slepe good occasions offered in worckyng, but with suche spede as arte wyll soffer, let hym finisshe his cure. Therdly, that he worke iently, courtyously, and wyth so lytle payne the pacient, as conuenientlyy you may, and not roughly, butcherly, rudlye, and wythoute a comblenes. Forthly, that he,be as free from crafte and decepte in all his worckynges, as the East is from the West. Fiftly, that he taketh no cure in the hande for lucre or gaynes sake only, but rather for an honest and competent reward, with a godly affection, to doe his diligence. Laste of all, that he maketh no warrantyse of suche sicknes,as are incurable, as to cure a Cancer not vlcerate,or elephantiasis confirmyd: but circumspectly

cumspectlye to consider what the effecte is, and promyse no more then arte can performe: and you shall doe theis thynges muche the better, (yea wyth oute theis, you can not any thynge profit your patient) yf you vnderstande the maner, and eracte wayes of stichynge woundes, of makyng tentes, splanes, stuphes, bolsters, and conuenient rollynges, wherfore if the day will therto suffise, we wyll declare and make playne theis thynges vnto you, and so finishe our talke of the institution of a Chirurgian.

Iohn Yates. I praye you let no tyme be herein lost, for lothe I ware to departe with out the knowledge of them, and for that you first made mention of stichynge, I pray you first begynne wyth it.

Tho. Gale. Then you must well marke and diligentlye consyder, that ther are three kyndes and maners of stichynge takynge names of ther effectes. The firste is called conglutinatiue or incarnatiue, the seconde is named compressiue, the thyrde is reseruatiues of theis, we wyll orderlye intreate, and first touchynge incarnatiue stichynge, note that the vse of it is in all grene and freshe woundes made in the flesshe, whose lyppes or sydes can not be conserued and kepte together, onlye wyth rollinge and ligature,

Iohn

Iohn Yates. And maye not this kynde of stichynge be vsed also in olde woundes?

Tho. Gale. Yf you wyll vse it in olde woundes whose lipppes are harde and thicke it behoueth you firste to make scarification of skynne abought, and so let blood flowe oute, and then you may vse it. and note that ther are .v. sundry kyndes of stichynge incarnatiue.

Iohn Yates. Whiche are they?

Tho. Gale. I wyl set them out vnto you. The firste kynde is done wyth an euen stronge and softe threid of sylke, makyng the first stiche in the myddes of the wounde, then the seconde stiche in the myddle space betwyxte the firste stiche and the one ende of the wounde, and the threide stiche shalbe lyke the seconde in the other syde of the wounde. And so euer betwyxte two stiches in the myddes, take an other vntyll the sydes of the wounde be aptlye and decentlye toyned together. And you must also take hede, that your stiches be not to thicke or thynne set. For yf they be to thycke, you shall as Celsus sayethe, prouoke dolour and payne, and cause inflammation, and if they be to thynne and rare, then it can not conteyne the sydes of the wound to gether. The seconde kynde of incarnatiue stichynge

is vsed

is vsed in greate woundes of the theis and shoulders: and is in this maner. Joyne the sydes of the woundes together, and marke howe many stiches it requireth, and for euery stiche you muste prouide a nedly and a threid, and put a nedle in the myddes of the wounde, and wynde the threid roundc abought the nedle many and sondry tymes, and the nedle remayne styll in the wounde, vntyll the consolidation of the same. You must in lyke sorte doe wyth the other stiches, whyche are to be made, accordynge to the quantitie of the wounde. The theird kynde of incarnatiue stichynge, is done wyth quylles or rolles made of stupes in the bygnes, and forme of quilles, beinge writhed, and made euen and smothe. And this waye of stichynge is thus, You shall drawe the sydes of the wounde to gether, puttynge your nedle and threid throughe bothe sydes of the wounde, and agayne put the nedle backe agayne throughe the same hole, and so leaue a loupe of the threid behinde, into whyche you shall put the one ende of the quytle, then drawe strayte bothe endes of the wounde to gether, and fasten them to the other ende of the quylle, and cut of the threyde, and let the quylles so remayne vntyll the wounde be

perfectlye healed. The forthe kynde is done by hookes, greate or lytle, accordynge to the bygnes of the wounde, & the hokes must be crocked and bowed at both endes. You shall caste an hoke on the one syde of the wounde, and drawe the other ende towarde thother syde, in whyche you shall fasten the other hooke. This kynde requyreth no violence, but only serueth wheras the wounde wyll easelye come to gether.

The fyfte and laste kynde of stichynge is wyth clothes thrycoznoyed being of suche bygnes, as maye suffise for the hurte membre. whiche kynde of stichynge is very conuenient in those woundes where as we wyll not haue the cicatrize to be seame, as in the face. and theis clothes muste be wette in some viscouse, and glutinous lyniment and laye them to on eyther syde of the wounde, and whan they be dryed, you shall make youre stiches in the clothe conuenientlye, and aptlye, and so ioyne the sydes of the wounde together, and theis be the fyne kyndes of incarnatiue stichynge.

Iohn Yates. Ther be twoo thynges touchynge theis stichynges that I muste require of you. The one is what maner a nedle we muste vse in oure stichynge: the other wyth what thynges we shall make oure liniment whyche must be extended on the lynynge cloth vsed in the fyfte kynde of incarnatiue stiching.

Iohn

Iohn Feilde. The nedle muſte be longe and ſmale, beinge thꝛeſquare, the eye holowed in, that the thꝛeid maye the eaſelyer folowe. to the whiche neadle ther muſte be a quille made holowe, called in latyne canulla, this ſerueth to holde the ſydes of the wounde to gether ſtedfaſtlye whill you make your ſtichynges. as touchyng the matter wherof you ſhall make your liniment, it conſiſteth one myꝛrhe, franckenſence, ſanguinis draconis, maſtick, ſarcacolle, pich, myllduſt, al theis, oꝛ parte of them, muſt be myxed wyth the whight of an egge, and ſo extended on the clothes.

Iohn Yates. This I vnderſtande ryght well: wherfoꝛe pꝛocede to the ſeconde kynde of ſtichyng whyche you call compꝛeſſiue.

Tho. Gale. That ſtichynge whiche we call compꝛeſſiue vſed to ſtaye and ſtanche greate fluxe of blode, is in thys ſoꝛte. foulde in the ſydes of the woundes, as the ſkynners vſe in ſowynge ther ſkynnes: and ſtich the, mouer caſtyng them. and we vſe this alſo in woundes of the inteſtines, and panicles wounded. But this kynde of ſtichynge, in my opinion is not ſo good and ſafe, foꝛ that if one ſtiche bꝛeake all the other are loſoned.

Iohn Yates. Then I pꝛaye you pꝛocede to the thyꝛde kynde of ſtichynge, called reſerua-

tyue.

tiue.

Iohn Feilde. This laste kynde serueth onely to kepe the sydes of the wounde to gether vntyl it be made hole. and is in lyke forme, as other comon stichynges, sauinge that the sides are not so straite drawne to gether, as in other woundes. and is right good in woundes ruptured and torne, and whereas thynges are afterwarde to be taken out, and whan as the wounde must be purged, and this shall suffice touchynge the knowledge of stichynge. ther be other inuentions and wayes of stichyng, which are to be lerned rather be seinge the connynge Chirurgian worke, then by many lynes set out in bookes.

Iohn Yates. Then I praye you procede to lynimentes and tentes.

Iohn Feild. Tentes, and lynimentes to be profitable, no man sene in Chirurgerie douteth. but at thys present, it shalbe sufficient to showe whan, howe, and to what endes, they be vsed: and also of what matter they are made, and of ther diuers formes.

Iohn Yates. I pray you vnto howe many endes doth it serue?

Iohn Feild. Unto .viij. sondry vses.

Iohn Yates. Whiche are they?

Iohn Feild. Firste we vse tentes to en-

large

large and ampliate a wounde, or to mundifye the same, and wheras matter and sanies is to be taken oute of deape wounde. Secondlye we are constrayned to vse tentes in profounde and deape wounde, whiche of necessitye requyre a newe regendrynge of flesshe. Thirdlye in wounde whyche through the ayre are altered, and therfore are made fylthy and sanious, and require mundification. Fortlye we muste vse them in contused wounde. Fyftlye the vse of them is ryghte profitable in wounde, that hath inflammation or are any tumour agaynst nature ioyned wyth them. Sextly, in wounde whiche come of bytynge. For suche wounde are not spedelye to be conglutinated: but rather kepte open. for that (yf we beleue Cornelius Celsus) all bytynge dothe participate of venome: and therfore that must be drawen oute, and not kepte in throughe to haste cicatrizynge of the wounde. Seuenthly, we occupye tentes and lynementes in those wounde, in curynge of whyche we muste handle the bones. Last of all, we vse tentes in olde wounde whyche are digenerated into the nature of vlcers.

Iohn Yates. Seynge you haue showed to what endes tentes serue; I praye you sette out

out the matter and substance wherof they doe consiste.

Tho. Gale. For the better understandynge hereof it behoueth to consider, for what cause and intention they are made. for some tyme they be vsed to clense and purge the wounde, and then they are made of softe and olde lynnynge clothe, some tyme they are vsed to kepe the wounde open and wyde, and then they are made of stupes cleane & well kempte, or els of coton woll. And for that cause also ther are tenles made of siluer or copper, beinge made holowe, and put into the wounde. as for examples sake, in woundes of the nose, wherby he maye both aptly drawe in the ayer, and also the wounde be purged of suche fylthynes as groweth. Further more whan as we wyll ampliate, and enlarge a wounde, than we make tentes of spongies, or the roote of the gentian. for theis suckynge the moysture in the wounde do therewith swell and ware bigger, wherby the wounde is inlarged. And as touchynge the forme and figure of tentes, they are made long, shorte, bygge, and litle, accordyng as necessitie require but. yet this is generall, that all tentes be made bygge at the one ende, and lesser euer towarde the other: lesse that they might slyppe into deape woundes. and theis tentes are somtyme dipped in vnguentes, and somtyme put into

into the wounde or vlcer dyre, accordynge as occasion is offred, and this shall suffice, touchynge tentes, ther vse, forme, and matter on whiche they are made.

John Yates. Boulsters folowethe nexte.

John Feilde. Boulsters called paluilli or plumacioli, are muche profitable and necessarie in woundes: for they compresse the membre diuided, and norishe, and conserue naturall heate, and keape the membre from the wayte and payne of the rollers. and in the olde tyme they vsed to sowe betwyxte two cleane and whight lynnynge clothes, fethers, and so made bolsters, whyche they vsed as is aforesayde. But for because they ware compelled eftsones, & often to alter ther boulsters, beynge wered throughe continuall makynge newe, they innented to make boulsters of stepes, made with flare, somtyme they make theis bolsters of woll or cotton fynly carded, and nowe it is in comon vse to make boulsters of fyne and softe lynnyng clothes thrise or more timner dubled, as necessitye requireth. also manye do make and ordayne boulsters of spongies. of theis boulsters some be applyed wette, and some be vsed drye, and there be for the more parte. vj. kyndes of boulsters.

John Yates. Whyche are they?

Tho.

Tho. Gale. Retentiue, conglutinatiue, expulsiue, restrictiue, confortatiue & conseruatiue. Theis take theis names of ther vse and office. for those bolsters whiche be retentiue serue in wounds, for to stanche blod, being but lytle and smale, and layd on a stupe or splegiant miryd with the whight of an egge, and some restrictiue medicine. The conglutinatiue bolster serueth to kepe the sydes of greate woundes to gether, after that they be stiched, and the forme of theis boulsters accordynge to Auicenne is thre cornerd, and so adapted to the member that one of the corners of eyther bolster lay on the wounde. The expulsiue bolster is ordayned to put out matter or sanies in vlcers and woundes, whiche be depe and holowe, and theis be made eyther of lynnynge clothe, or els of spongies. The restrictiue boulster is made of lynnyng clothes dubled twoo or three foulde dypte in wyne or vineger, or other decoction, and so wronge out and layde on eyther syde the wounded parte: and this doeth restrayne the flure of humours flowynge to the parte, and kepeth backe inflammation and other accidents, whiche myght infest and greue the weake membre. and the vse of theis boulsters is rygbt profitable in fractured bones or lurations. The confortatiue boulsters serue to confort and

strengthen

strengthen the weake membre and are diuersly made, some of fyne lynnynge clothes in whyche is solued fethers, and this is made lyke a twilte, and serueth for the armes or legges to keape them warme, and norische natural heate. There be also some made of towe, whiche are accustomably vsed in woundes of the heade. Other are made of spongies, dipped in some hotte liquore, or oyle, and after wronge oute and applyed to the ioyntes and coulde partes: the conseruatiue bolster serueth in luxations, to kepe the membre reduced to his natural forme, in the same state. as the shoulder bone being reduced to his wounted seate, we laye a bolster vnder the arme, or as they comonly say in the arme pitte, and theis be the moste notable and vsuall kyndes of boulsters vsed in the arte of chirurgirye.

Iohn Yates. If you in lyke maner make playne vnto me the maner of ligature and rollynges, I shal thynke my selfe satisfyed for this present.

Iohn Feild. We will fulfil you requeste, and firste folowynge Auicenne in his fourth fen. of his forth boke, we make. iij. sondry sorts of ligatures or rolling, that is to say incarnatiue, erpulsiue, and retentiue. the incarnatiue or rather conglutinatiue, is vsed in grene woundes, or fractures. And the roller muste be

rolled

rolled vppe one both endes of the same, and the begynnyng of the ligature muste be on the contrarye, or oppolite parte of the wounded place, wyndynge the one parte of the roller, towarde the hyegher parte of the membre, the other towarde the lower parte. The breath of the roller muste be suche, as may couer all the wounde, besides some partes of the sounde flesshe. the roller muste be drawen strayter vppon the wounde, then in the other partes. but yet not so straite, as may cause dolour or payne, inflamation and flure of humors, and let the endes of the roller be stiched and solued, and not tyed on a knot. The seconde sorte of rollynge, called expulsiue, is properly vsed in olde and holowe vlcers: and this doeth expell the matter, and filthines gathered in the botome of the vlcer vnto the mouthe and orifice of the same. This is wyth a roller begynnyng at the lower parte of the affected membre, and so makynge the ligature straighte, and so procede to the vpper parte of the membre, makynge your rolling lesser, vntyll you come to the orifice of the vlcer.

John Yates. Be not offended I praye you, though I seame to breake of your talke, and or you procede further, let me vnderstande what you call the hyer parte of a membre.

John Feild. I call wyth Galen the hyer

parte

parte of a menber that which is moſt neare the lyuer or hearte.

Iohn Yates. Then I pray you retourne to youre former talke.

Iohn Feilde. There yet remayneth to ſpeake of the thirde kinde of ligature, whiche is called retentiue, and this onelye dothe ſeruc to kepe on medicines on the wounde, vlcer, or part affected, and in apoſtemes and other yll diſpoſitions, and this is done with one onely roller beginninge firſte on the parte affected, and ſo proſede according to vſe, faſting the roller wyth ſtichyng, and this kynde of ligature muſt be done ſoftly, ientlynot to hard or ſtraightbut without doloure or payne, and muſt be loſed whan neceſſitie doth require. ¶ if that it fortunyth the roler to cleaue faſte to the medicine or mẽber, take it not away with violence, but wette it ſo longe with wyne made warmẽ vntill it will of the one accorde loſe and be taken away without griefe or payne, and note, that youre roller be made of fine and ſofte lynninge clothes, not to muche worne, and vnable to holde, let it be alſo of that length and breath, that the parte affected doeth require. as for example rollers, for the thigh muſt be. v. fyngers in latitude. for the arme three fingers brode, for the finger the roller being a finger brode ſhall ſuffice, as touchinge the longitude or lengthe of the roller, it is to be

made as necessitie require, & occasion is offred.

Tho. Galé. Wel then, seinge that we haue ended this talke of stichyng, tentes, boulsters, stupes, and rollynges, we wyll here conclude for this present. for behoulde the sonne draweth farre west, and the tyme wyll scarse suffice for oure iorney homewarde, and what you heare doe want, you shall fynde in other of my workes. but in our goinge towarde the Citie, let me heare what you haue borne awaye of this dayes talke.

John Yates. I wil repete in briefe wordes so much as I can remember.

1 Firste whan as I met you in the morning, being in talke of Chirurgirye you shewed me what it was and gaue me therof diuers definitions.

2 Secondlye you proued it to be the thirde parte therapeutike and shewed the antiquitie and worthynes of the same wyth certayne noble princes and capitaines who exercised Chirurgirye.

3 Then you saide that Chirurgirye did consist of two partes, the one being called

called the theoryke, the other the practise.

4 After that you declaryed what was subiectum Chirugiæ the thynge on whiche the Churugian doth exercise hys arte and also what was the ende of Chirurgirie.

5 Further you sete out what maner a person he should be that muste learne the arte of Chirurgiry, and what condicions are in hym required, and what the cause was that there is so manye rude Emperikes and vnskylful professours of Chirurgirye.

6 Consequently you did make mencyon of the chefe and mooste necessarye instrumentes where with a Chirurgian oughte to be furnyshed, bothe metalline and medicinall with there proper office and vse.

7 Then you sete out the methode & way to be obserued in learning the art

of Chirurgirye and of the righte vse of instrumentes both metallyne and medicinall.

8 Nexte folowyth such syckenes as fal vnder the hands of the Chirurgian that is to say. tumors againste nature, woundes, vlcers, fractures, and luxations wyth the definitions diuisyons differences, and diuers names of euery of them.

9 After these thynges finyshed, you set oute certayne kyndes of solution of continutye taken out of Galen.

10 Also you sete out the operations of the Chirurgian, which are required in curing the fornamed greses & what thynges are herein to be obseruyd or fled.

11 Finallye you set oute the arte and maner of dyching, tentes, plumacyes, stupes, boulsters, and rollynges: wyth there differencis, substaunce, fygure vse

and

and comodytye theys seme to be the argumentes of this daies talke except I be deceyuid.

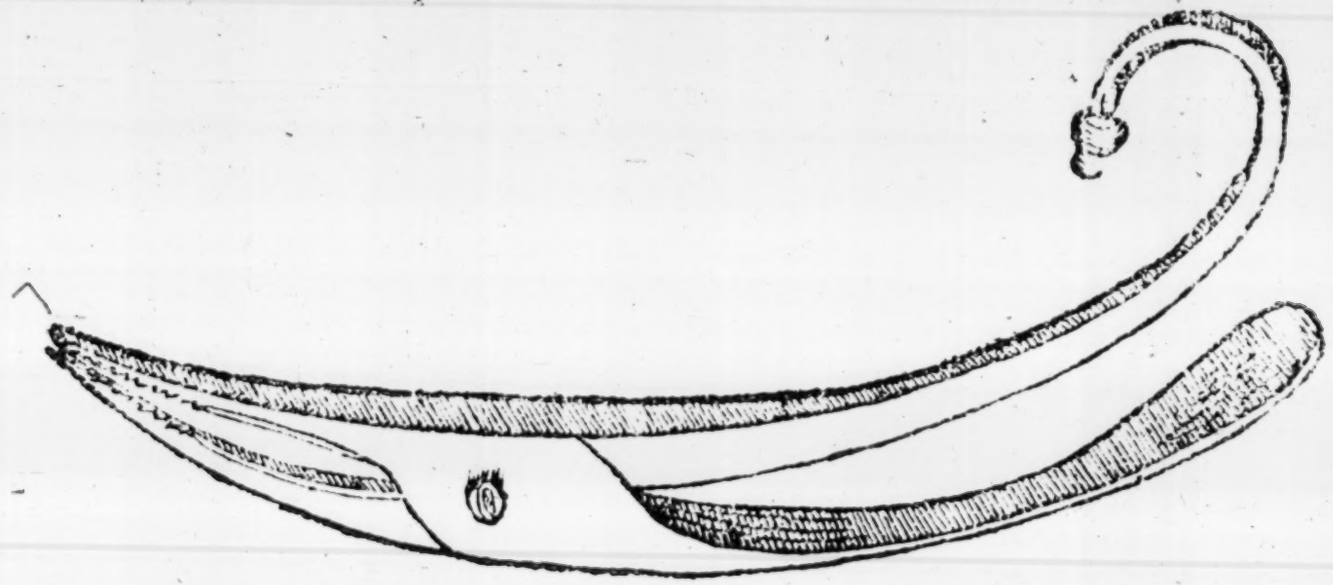
Thomas Gale. They be so indede, and now beholde, we be come to the Citie. Wherfore we wyll now leaue of talke here, and you both shall this night take parte of suche cheare as God hath sent me, and let vs recreate oure spi-rites, and be merye I pray you.

Iohn Feilde. I thanke you hartly syr, and I reioyse that my brother Yates haue so firme and perfite a memorye, God sende more suche to folowe Chirurgirye.

Iohn Yates. I thynke you bothe for the great benefice I haue receyued at your handes. and God graunte me to spende many dayes in this sorte.

AMEN.

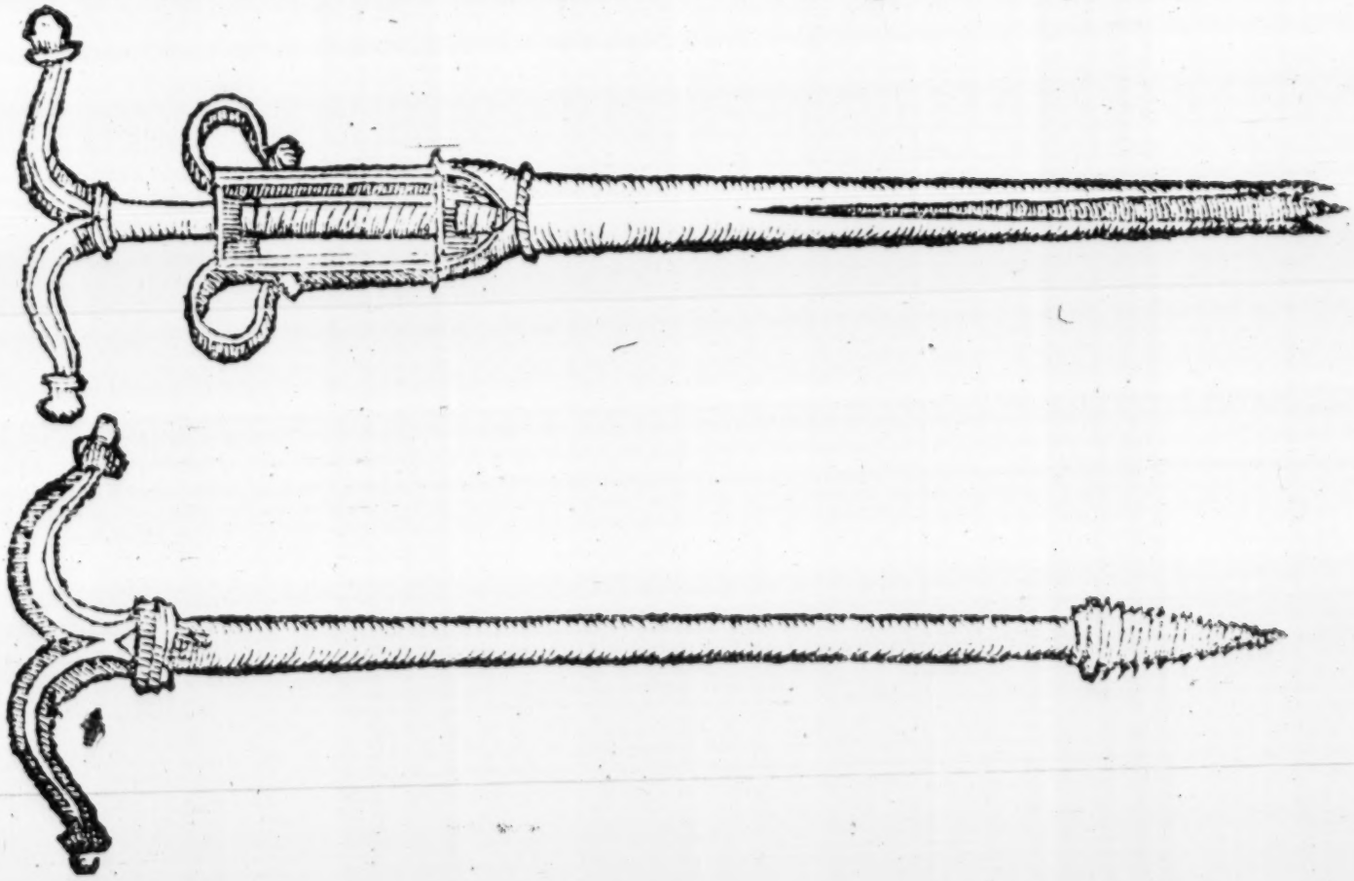
The .ij. kynde of forceps called also Rostrum Coruinum, or Serpentinum.



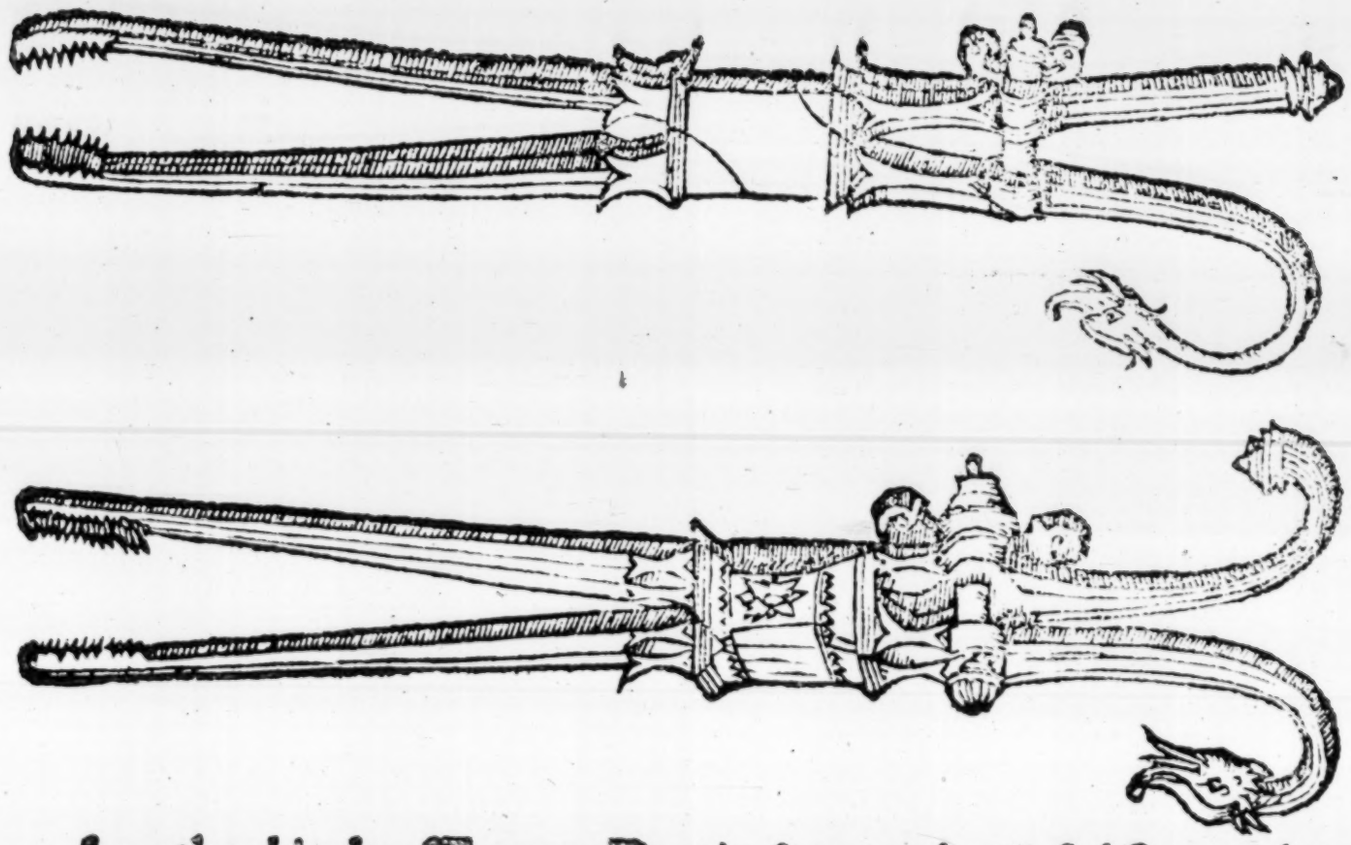


The first kyndes of instrumentes whiche are called forceps, seruyng to take out thyng fyxed in woundes.

Terebra inuersa seruyng to take out thinges fixed in wounded.



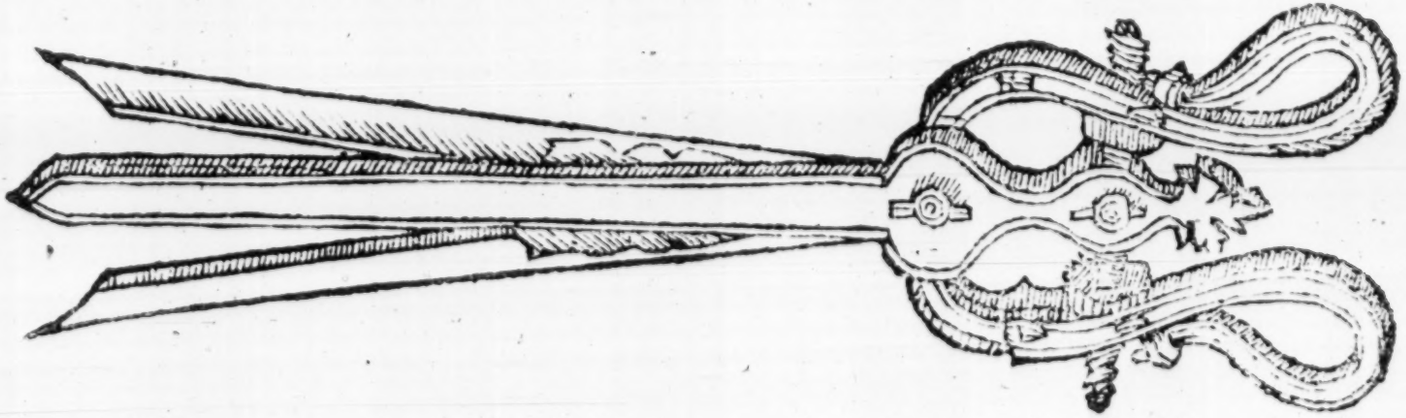
Terebra directa, seruynge to inlarge bones whan thinges are therin fyxed.



An other kinde of Forceps Denticulata: and are vſed for to take out ſhotte pelletes, arrovve heades, and other thinges fixid in vvoundes.

Thotte pelletes, arrovve heades, and other thinges fixed in vvoundes.

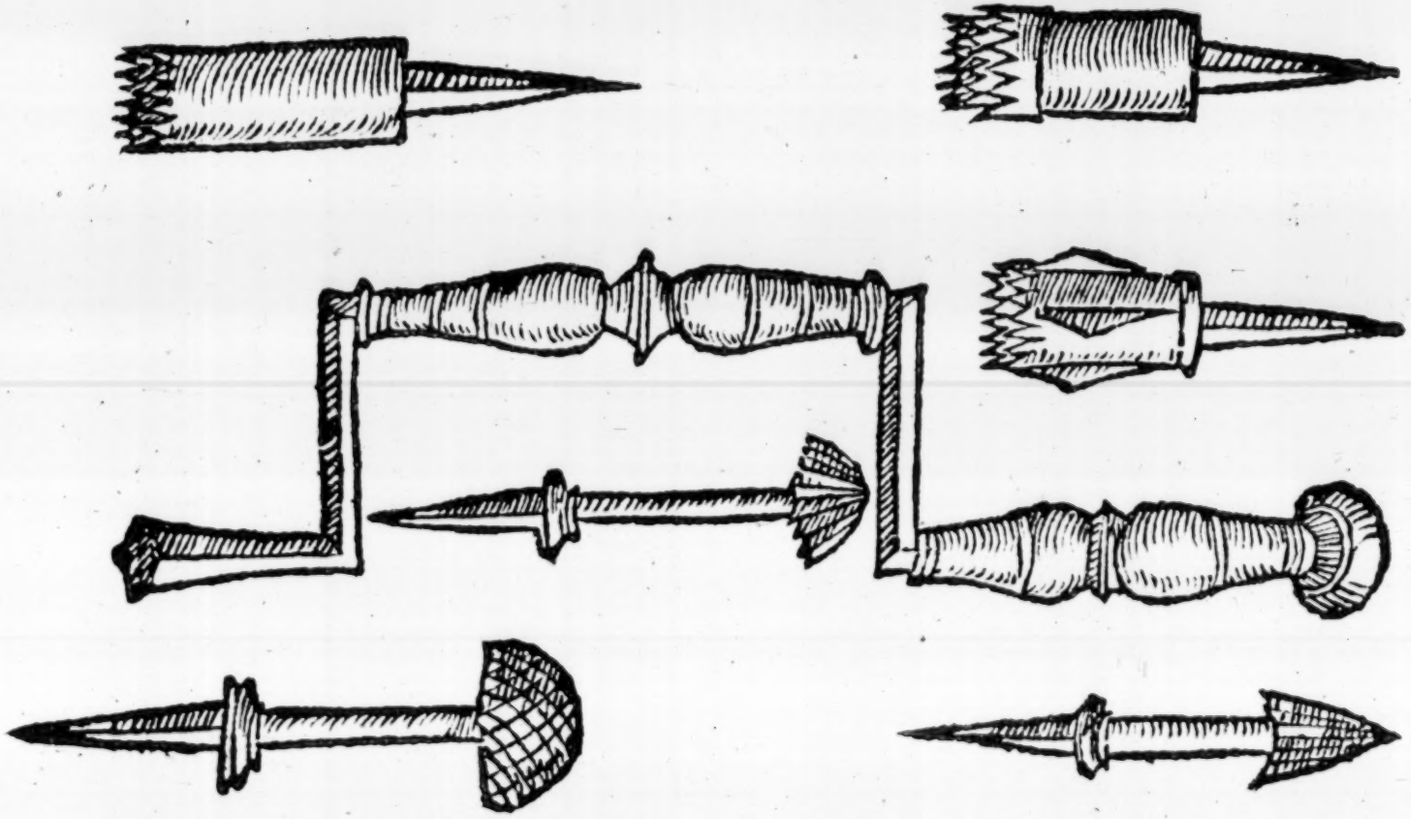
Forfex exciſoria, or inciſion ſheares, to enlarge a vvounde vvith.



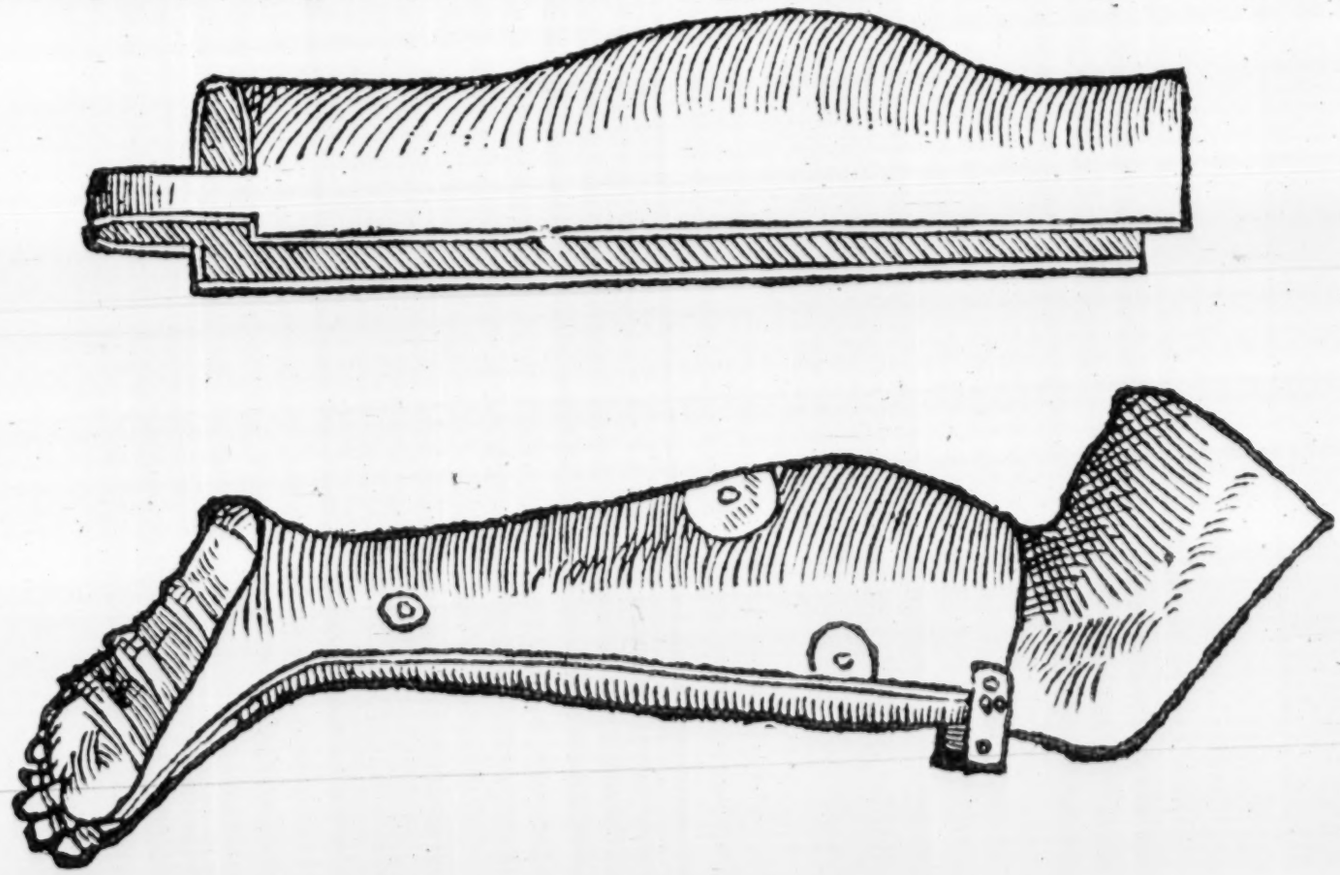


Synrigies to make Iniections into vvoundes.

Trapan, or a trapane to boore holes in cranio when necessitie requireth.



Gossopium, seruyng to laye the fractured legge in, broken with a gonneshot. &c.



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An Enchiridion

of Chirurgerie, conteyning the exacte and perfect cure of woundes, fractures, and dislocations, newly compiled and published by Thomas Gale, Maister in Chirurgerie.



PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.



Richarde Ferris Sear-

geant Chirurgian vnto the Queenes moſt excellent Maieſtie, vnto his louing frende maiſter Gale ſendeth greting.

TVVO thynges there be at this preſent vvhiche moueth me to addreſſe my letters to you maiſter Gale, of vvhich the one is the auncient and famous art of Chirurgerie, vvhich vvas in tymes paſt not an art of it ſelfe, but one portion of the curatiue part of Phiſicke, called Therapeutice: the other is my natiue countrey. Theſe tvvo by your labours and paynes: I truſte ſhall receyue no ſmale profite and gaine, and theſe make me to vvryte my letters gratulatorie vnto you. Firſt that the art of Chirurgerie, vvho being novv ſo decayed, vvhoſe fame ſo obſcured, her beauty eclipſed & vtilitie of it diminiſhed, ſhal by you be ſomevvhat brought to her vvonted & priſtinat ſtate. For it is in far vvorſe caſe novve in this our furious and raging ſeaſon (in vvhich good artes are contemned, or els lytle eſtemed and had in price) then it vvas in the tyme of Mantuan the Poet, vvho ex-

clameth in this vvyſe.

Fama quidem manet, vtilitas antiqua receſsit.

The Poet ſpeaketh of Phiſicke generally vvaying the excellẽcie of it, & the great vtilitie that hath come to mankynde by it in the olde tyme, as the vvorkes and volumes of the Greke vvryters, do teſtifie and beare vvitneſſe: and conferring further theyr teſtimonies vvith the poore fruites of it that did ſpring in his tyme, as one lamenting the decay of ſo noble a ſcience, and great gifte of God to mankynde, ſayde in effecte.

Her noble fame yet ſtyil remayne,
But few doth health by her attayne.

He ſpeaketh it in the vvaye of comparation, that there did not ſo many by the benefite of Phiſick receyue their health as did in the olde tyme. But I leaue Phiſicke, and vvill ſpeake of Chirurgerie both our profeſsions. Surely I dare boldely affirme that if Mantuan vvere novve liuing and did beholde the ſtate of Chirurgerie, he vvould not ſay that her fame did yet remain, but rather that nother fame nor yet great vſe remained: I had almoſt ſayde that it vvas knovven but only by name. And vvhat be the cauſes that ſhe is broughte to this miſerable eſtate? If I ſhall ſaye that vvhich I knovv there

be

be tvvo principall enemies. The one is the Chirurgian himſelfe, vvho neither knovveth nor yet laboureth to learne his arte, but being inflamed vvith the loue of turpe lucrū, rudely and blyndely exerciſeth his arte. The other enemie is the Pacient vvho hath need of Chirurgeries ayde. For he vvill haue in lyke eſtimation, a Cobler, a Ioyner, a Minſtraile, a vvoman, yea a Horſeleache, that he vvill an expert Chirurgian, yea and revvard them as vvell, if it be not better. The remedies for one of theſe miſchiefes you haue, I hope, in tyme prouided. I meane in ſetting out your Enchiridion. For there ſhall thoſe that in deed are licenſed to exerciſe Chirurgerie, finde no ſmale portiō of this art compendiouſly and faythfully gathered together. VVherefore leauing other their authours in vvhich many errours are hidden, I doe exhort them that bothe for the fame of Chirurgerie, vvhich they ought to their vttermoſte to maintaine: and alſo for their ovvne gaine and profite they vvill not only read this Enchiridion: but read and read it againe, not leauing vntill they be made vvell acquaynted vvith the ſame. And if any places do remaine obſcure and darke: they yet haue you the authour to reſort vnto, vvho vvill as gladly I am

ſure open the meaning of them, as he hath vvillingly for their gaine and profite compiled the ſame. As for the other enemie I meane the ſick pacients, it doeth not muche force, for they are enemies chiefly to them ſelues, vvhen as they fall into the handes of ſuche rude and buſſardly clouters. And although the pacients being maimed and brought in perill of death by ſuch, do exclame againſt Chirurgerie and Chirurgians: yet if the Chirurgians themſelfes ſtudy to be learned & excel ſuch rude Emperikes, the ſlaunder ſhal returne to the authours therof again. The ſecond cauſe of my vvriting vvas for my natiue countries ſake, that lyke as you haue labored frō the tyme that you vvere in my gouernaunce & teaching to profite the ſame, and haue novv ſhevved an euident ſigne and token thereof in this your Enchiridion: ſo you vvill not ceaſe to continue in theſe your good enterpriſes, and your country ſhall revvard you vvith honeſt report and perpetuall fame. Thus I ceaſe to trouble you further, looking ſhortlye for the publiſhing of this and other your vvorkes. At my houſe in Paddinton, the ſeconde of Iuly. 1563.

CHirurgerie vvhoſe perfect lyght
all other realmes do knovve,
VVhoſe learned men vvith diligence,
doth make it ſhyne and ſhovve,

In our coſt hath not yet apperd,
ſaue in moſt obſcure vvyſe,
Thorovv duſkye clouds of ignoraunce,
that ſcience doeth diſpyſe.

But maugre novve the malice great,
of Momus and his ſect,
A moſt cleare Gale doth blovv avvaye,
thoſe cloudes and them detect.

As after rude and cloudy ayre,
the vvelkyne hiecinthe blevve,
Is ſometyme ſeene, vvhen vvynds moſt drie,
haue chaunged ſo the hevve.

Therefore to this excellent Gale,
ſee that ye thankefully,
Geue condinge prayſe, and pray that he
may moe ſuche blaſts apply.

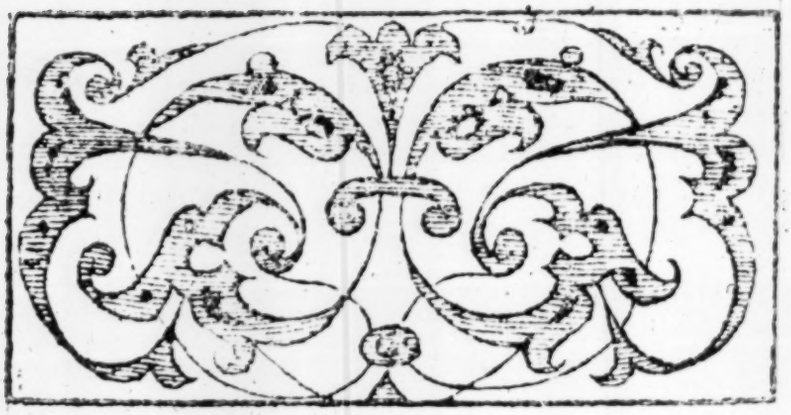
That the armade of learned ſhipps
belonging to this arte,
May vvaye the ancres ſpred the ſayles,
and from rough ſeas depart.

VVhyle this gale blovves, that ſome of them,
ariue maye at our porte:
That to the fleet of knovvledge ons,
yonge learners maye reſorte.

Purchaſing ther vvith diligence
ſcience that vvyll remayne:
Leuyng aparte vyle ingnoraunce
the mother of diſdayne.

Ihon Hall

Chirurgian.



Thomas Gale Chirur-

gian vnto the yonge men of his com-
pany, ſtudents in the noble art of Chirurge-
rie, wiſheth the grace of God, perfect know-
ledge in their art, and moſt happy and
proſperous ſucceſſe in
the ſame.

WHen as I had for your ſakes (dere brethren) fi-niſhed my booke intitu-led the Inſtitution of a Chirurgian, and thought to haue proceded no further touching the practike part, but minding to ſend you to Guido de Cauliaco, Brunus, Lan-franke, Vigo, or ſome other of our Au-thours in Chirurgerie, whiche doe thereof intreate: I could fynde no one that might anſwere my deſire. For ei-ther they wryte in the tonge whiche the moſt of you vnderſtand not, either vſe they corrupt and barbarous na-mes of ſickneſs and medicines, or they be to tedious & longe. or elſs to conciſe and brief. Furtherinore they welney al are ſo ful of errours, that they are only

for the learned to read, who can discerne betwixte trueth and falsnesse. Wherefore knowinge your desyre to learne, and seing the want of such Authours as you should profite by: I lamenting the case, and tendering your wealth haue taken the paynes to compile you this briefe Treatise, called hereof an Enchiridion, in whiche you shal fynde the methode and way how to cure all woundes both in the similer and instrumentall parts. Also how to knite and heale fractured members, and to reduce and repose againe into their wonted and naturall place suche bones as be dislocated. Diuers secret and perfect experiments I haue made open vnto you. Wherefore be bolde to worke after the doctrine set oute in this booke, and take these my labours as a pledge of my good wyll towards you all: and loue me styll as you haue begonne. At my house in London the.ii. of August.

1563.

The first booke of the

Enchiridion of Chirurgerie, conteyning the
exacte and perfect cure of wounds
made in the similer partes
by Thomas Gale.

¶ The first booke.

FOr as muche as in this present treatise (which I do compile for the instruction of those that profesſe Chirurgerie) I do purpose to entreat orderly of wounds, fractures and dislocations: I thinke good first of all to set out what a wound is, and howe manye differences there be of woundes. Howbe it my principall scope tendeth rather to teache the practise then the theorike at this present. Therefore a wounde is named a solution of continuitie, newely made in the softer partes of the bodye, without putrifaction, corruption, or matter. For if anye matter, putrifaction, or corruption followeth, then is it no more called a woũde but an vlcer. Of wounds I doe make two differences: for either it happeneth in the similer partes, as in flesh, arterie, vayne, nerue, bone &c, or els in the organicke or instrumentall partes. Of

these

these two sortes of woundes we wyll nowe ge-
nerally intreate. And for because the least and
smalest wounds, require least labour, diligence
and connyng, and that the studient muste in
most easiest things be first exercised and trained
vp: I wyll shewe you briefely the cure of a sim-
ple and small wounde, where the skynne one-
ly is diuided or cut. You shall aptly ioyne the
lippes or sides of the wounde together so euen
as possible you can: then make a stuffe wyth
towe and the whyte of an egge mixed with a
litle salte, and apply it to the wounde, then rolle
and bynde it accordyng to arte, and this is suffi-
cient in such kynde of woundes. You must al-
so commaunde the Pacient that he exercise not
the wounded member, least that he causeth ac-
cidentes to fall to the wounde, as inflamation,
flure of humours, dolour, and payne. &c.

The cure of great and depe woun-
des, and of diuers kyndes of sti-
ching. Cap. ii.

IF the wounde be great in the flesshe, and yet
without accidents, you shall beginne your
cure as in the chapter before, that is by com-
prisyng and ioyning the sydes of the wounde
together, and than rollynge and byndyng it.
But if the wounde be bigge, wyde, or els ouer-
thwarte

thwarte the member, so that rollinge and binding are not sufficient: than you are compelled to vse stiching, of whiche there be diuers sortes, and I wyll set oute those whiche are moste in vse. But or you goe aboute the stitching of the wounde, geue diligent heede that it be mundified and made cleane, that there remayne not in it eyther any vncleanesse, as heare, dusse, oyle, or suche lyke: whiche may hynder the adglutination of the wounde. You must for your stiching prepare a three square Needle made hollow in the eye, that the threde maye the easier folowe, and let your threede be euen without knottes, well twyned and waxed. Then your stiching shalbe in this sorte. Make your firste stiche in the middes of the wounde, than a fingar breadeth from that make another on bothe sides of the midle stich, & so leauing the space of a fyngar breadeth, make so manye stiches as the wounde requireth. And take this for a generall rule that you neuer begynne your stiching at the ende of the wounde, because through that occation the wounde might be drawen awrye, and the member lose his beautie, and sometyme parte of his office. And beginning your stiches in the middes, this folowth of necessitie, that your stiches shalbe odde, if there be more or lesse than twaine. And if the wound be deepe and ouerthwarte the member, then you

must

must make your stiches deeper and that for two causes, the one for that it shoulde not breake out againe the other that the wounde myghte haue lesse matter and better take consolidation. And when you haue thus stitched the wounde you must ouer cast the threide twise or thrise or you knit your knot: otherwyse it wyll breake out or you can knit your knot the proof of which I haue sene among the vnlearned surgeons. And when your wounde is thus stiched then take tow and make a stuke with the whight of an egge & thys pouder folowing and lay it on the wounde, and though it hath not beene vsed before this tyme, yet it is bothe better and more conuenient then that which is mencioned in the last chapter and this is the first kind of stiching.

The discription of the pouder.

Rec. Olibani p.ij.
Sanguis draconis p.j.
Calcis ex ouorum testis, p.iij.
Ex his fiat puluis subtilis. secundum artem.

The second kynd of stitching is to sowe ouer the hand as the skinners doe, which is vsed in woundes of the intestines or where as Siphach is sowed to Pirach. The thirde kind is to put the nædle through both the lipps of the wounde letting it so still to remayne and winde the thræde sire or seuen times about the neadle & thys is vsed in wyde and large woundes. The fourth maner of stiching is when as a vayne or arterie is cut and we vse to stay the flux of blod especially whē as vene iugulares is cut. Then we thurst the nædle through that vaine or arterye and then knit the same with the thried, then drawe out the nædle & let a portion of the threed hange out so longe vntyll it falleth awaye. The fyft sort of stiching is vsed in woūdes of the face or delicate and tender bodies which are not able to sustayne the paine of stiching with the nædle. And the stiching is in this sort. Take litle peices of linnin cloth three square and sprade on them this vnguent folowing. And lay on euery syde of the wounde the peces of cloth euery one from other an inche and when as the clothes are dried well, then stich them and drawe them together and vse the wounde in all other pointes as is afore sayde.

The makynge of the vnguent.

Rec. Dragaganti
Sang.draconis
Olibani
Mastiches
Sarcocollę
} ana.a dragme.

Pulueris volatilis molaris iij.dragmes.
Albuminis ouorum q. s. ad incorporandum.

Of woundes in vaynes and arteries. Chap.iii.

When as it happeneth that the vaynes are cut & wounded you must diligently marke whether they be Venæ capillares (that is to say) small vaines like heare, or ells any of the greater vaynes. If they be the smalle vaynes it shal suffyce to stiche the wound and vse the pouder desiccatiue mencioned in the chapter goyng before, with twoe and the whighte of an Egge. But if any of the great vaines be woũded, then the cure aforesaid is not sufficient. Wherefore you may attempt to stay the flure of blond with binding the contrary side to the place wounded: or with letting of blod in another place wherby there is made diuersion of the flure. Also wyth frictions and rubbing the contrary partes. If these suffice not then you must applye causticke

pouders as Arſenicum ſublimatum, Vitriall burnt, vnſlicked lime, or ſuch like, or elſe make cauterization with an yron, or liche the ende of the baine. And lay ſome deſiccatiue pouder on it and ſo dreſſe the wounde lettyng it ſo remayne fours daies. And if there be any aſker, you muſt apply to it the whight of an egge & oile of Roſes well beaten together. And the cure that is heare ſpoken of baines, is alſo to be vnderſtand of arteries: and the way to know whether a baine or arterie is woundedits by the yſſuing oute of the blood. For in an arterie cut, the blood cõmeth lepping and ſpringing out with ſume ſtaye accordinge to the dilatation and compreſſyon of the arterye.

A pouder deſiccatiue.

Rec. Olibani ij. vnces.
Aloes hepaticæ. j. vnce.
Pilorum leporis minutim conſciſo. albuminis ouorum ad incorporandum.

I Anfranke gyueth great prayſe to thys medicine, and maketh mencion of a childe three yeres olde bearing a knife in his hande fell on it, & wounded his throte ſo that through flux of blood, the pulce begaine to ceaſe & the childes

ſight to decaie. Lanfranke comming by, laid his finger on the mouth of the wounde to ſtaye the flux of bloud: then he tempered the pouder with the wheight of an egge, and laid it to the woũd, lettyng it ſo remaine fower daies: and when he would haue taken it away: it was ſo dry and cleued ſo faſte to, that it myghte not be remoued wꝫout payne, wherefore he applyed the whyte of an Egge & oyle of Roſes beaten together to the place vntyll the nexte daye, and the wound was founde perfitely healed, to the great admiration of the people whych dyd beholde it.

An other deſiccatiue pouder.

Rec. Calcis viuæ
Sangui. draconis
Aloes hepaticę
} ana. halfe an vnce
Fiat puluis.

But if you wyll haue another, which dryeth and reſtrayneth more, vſe this folowing.

Rec. Gallarum
Sangui. draconis
Boli armeni
Thuris
Aloes hepaticę
Maſtiches
} ana. ij. dragmes.

pilo-

Pilorum leporis iij. dragmes, fiat pulvis crassus.

Rogerius and Jamerius vsed another pouder, which is not onely excellent in stayinge the flure of bloode, but also doeth exiccate and dry, whose compo sition is in this maner folowing.

Rec. Colophonij vj. ounces.
Boli armeni iij. ounces.
Mastiches
Sang. draconis } ana. j. ounce.
Olibani
Radicis cõsolidæ maioris
Rosarum persicarum } ana. j. vnce.
Fiat ex hijs omnibus puluis. Vsus, vt supra.

Wynsliike remembreth a stone which he calleth a bloudstone, (but yet not that whyche are named Jaspis and Hematites) & it is in colour pale whitich with smal red vaines, and is found in Spayne, whose pouder he preferreth afore all other thinges in stayinge the flure of bloude in woundes, vaines, and arteries.

Of the woundes in Nerues or Sinowes. Chap. iiij.

In a wound it may happen the nerue to be diuided in length, & sometime ouerthwart which is very perilous. Also sometyme the nerue is pricked with a nedle, bodkin, alle, theone or such like. Vnto all this to ceasse the dolourc and pain of so sencible a part, you shall vse eyle of Roses made wyth Oleum omphacinum, somewhat warmer then the pacient can well suffer. Also you may make a good digestiue of fine Turpentine well washed in the waters of plantyne, or Hipericon, & apply it to the wound. And if these with often application ceaseth not the dolour & payne: then take Olei rosacei two Vnces, Boli armeni two dragmes, & opy a litle: mixt these together and apply it warme to the wounde. And when the payne is ceased and the wounde drawcth to maturation: then you may heale it with the drinke and plaster vsed in greene woundes, which you shall fynde in the antidotarye. You shall also not onely in wounded Neruis, but also in all other wounds vse Vnguentum de vermibus, whose composition is in this maner.

℞ Centaurij minoris
Cynoglossi
Consolidæ minoris
Consoldæ mediæ
Olei omphacini lib. j.
} ana. M. j.

Lum-

Lumbricorum tereſt. } ana, half a pou.
Vini albi }

Stampe all theſe together and let them ſtand infuſed vii. dates, then ſtampe with that.
Seui Oiuini. lib.ij.

Picis } ana ounce iij.
Reſinæ }
Ammoniaci } ana ,v.
Galbani }
Opopanicis in aceto ſoluti } dragmes.

Boyle all theſe together vntyll the wyne and vineiger be conſumed. Then ſtrain it and when it beginne to ware colde adde to it.

Thuris } ana dragmes iij.
Maſtiches }
Sarcacollæ }
Croci dragmes.ij.

Theſe being made in fine pouder, in the puttyng them in, ſturre them well wyth a ſplatter or ſlyſe that they growe not into cloddes and lumpes. Alſo to defende the wound of ſinowes yea and all other woundes from accidentes whyche doe commonly chaunce, all excellente

Chirurgians vſe to haue in readynes thys defenſyue folowyng.

A defenſyue.

Rec. Olei roſarum. ij. ounces.
Boli armeni.
Terræ Sigillatæ. } ana i. ounce.
Aceti.
Camphoræ. j. dragme.
Solani
Semperuiui } ana. M. j.

Make of all theſe in a mortar a perfyte vnguent. And if the wounde be to moyſt and hath to muche ſuperfluous matter whereby it can not come to adglutination and cicatrization. Then vſe this medicine nexte inſuing.

Rec. Mellis roſacei. ounces. vj.
Farinæ Hordeaceæ. ounces. ij.

Temper theſe together and boyle them, but ſuffer them not to burne, then put to it fine turpentyne (waſhed in the water of Hypericon) two vnces, myxe them and vſe it to the wounde.

Of woundes in whiche are fyxed thornes, splinttes of wode, arrow heades, gonneshotte, or such lyke. Chap. v.

When as in woundes their happeneth to be fixed thornes, splentes of woode, arrowe heades, gonshotte or such other like, and the orifice of the wounde is so narrow that with instrumēt it cannot be taken out, you must of necessitie labour to enlarge the wounde, which you may do two sondry waies. The one is with tentes as of the roote of gentian, pithe of elder, or a peece of a sponge: the other is to make incision with a paire of cisers or with sheres whose fygure is in the institution. There be also when as the wound is enlarged diuers and proper instrumentes to take out w̄ such thinges as are there infixed as tōges or nippers, & teribilis, whose pictures are in the Booke before named. Also you shall know in deape woūdes what part is hurt by these signes folowing. As the braine beyng woūded he shal voide scomme and fome at the mouth. If the hart be wounded, their yssueth out bloude blacke in colour. Also if the longs be wounded, the blod is like a scūme. But yf the stomacke be perced the meate indegest commeth out. In like maner the intestines being woūded, the odour issueth. Further more

the vryne floweth out in wounds of the bladder and so by that which is cõteined in the member, you shall coniecture the wounded part. Now as touching the takinge oute of suche thinges as be fired in the wounded member, you may procede principally thres sondry wayes. Fyrst you may vse suche instrumentes before set oute as shall seme most necessarie. Secondlye if the thynge fired be forkyd as a broad arrowe head or suche like, and be perced through the greater parte of the member: then it shalbe much better to thrust it through the member then to take it out at the orifice of the wounde. Laste of all if these twoo wayes will not serue, because of the wounded place, then as much as you can make the wõũd wider by tents or incision, and lay maturatiues to it certaine daies, and then that which is contained in the wounde will with lesse difficultye come forth. You shall commaunde the pacient to laye on the wounded syde, because the drynke whych I vse in such woundes may the more readely come to the wounded part. The composition of this drinke you shall fynde in the antidotarie. Also you may vse thys playster folowynge to the wounde whych is right good in extraction of such thinges as are fired on wounds.

The empastre.

Rec. Apostolicō descrip. Nicholai iiij. vnces.
Magnetis orientalis. ij. vnces.
Polipodij. } ana halfe. ounce
Dictami albi. }
Pinguedinis leporinæ. ij. vnces.
Olei canabis. j. vnce.
Terebinthinæ. halfe an vnce.

Of all these make an emplastre. Also there is another composition of meruailous vertue in drawynge oute rotten bones, thornes, and other lyke thynges.

Rec. Nucleorum palmularum. }
Stiracis rubei. }
Salis ammoniaci, }
Aristolochiæ longæ. } ana v. drams.
Radi. cucumer. asinini. }
Teribinthinæ. }

Piperis albi. }
Piperis nigri }
Armoniaci. }
Amomi. } ana ij. dragmes
Xylobalsami. } and a halfe.
Thuris masculi. }
Colophonij. }

Fecum olei liliacei. q. ſ.
Ceræ iiij dragmes fiat vnguentum,

But in arrow heades or ſhot poyſoned the medicines rehearſed are not ſufficient. Wherefore you muſt giue the patient ſome antidotum or Alexipharmacum, agaynſte venome bothe inwardly and outwardly, inwardly you ſhal giue him euery day this potion.

Rec. Vini cretici
Sublimatæ rutæ } ana ounces. iiij.
Tormentillæ.
Dictami. } ana ij. dragmes.
Theriacæ opt. i. dragme.
Bulliant ad conſumtionem tertiæ partis.

Outwardly into the wound you ſhall put oile of violettes warme, which oile muſt be made of line ſæde oyle. You maye alſo weate you tent in the ſame oile and alſo myxte it with your other medicines that you apply to the wounde.

Of contuſyd, broſyd, or cruſhyd, woundes. Chap. bi.

In contuſyd woundes the methode curatiue differeth from that which hetherto is mencioned. For in theſe woũdes firſt you ſhall apply maturatiues, whereby that which is broſid and ſeparated from the vnitie of the part may be turned to matter (they call it in Latyne ſanies vel pus) and when it commeth to maturation: then you muſte vſe mundificatiues to mundifie the wounde, vntill it be cleane and voyde of matter. Then your nexte intention is to ingender fleſhe which you muſt doe w̃ incarnatiue medicines, & euer be diligent to defende the contuſid member from accidentes with oyle of Roſes warme applied to the ſame. As touching maturatiues, mundificatiues, and incarnatiues, you ſhal find them in my antidotarye and in dyuers partes of thys worke.

Of deepe and hydden woundes whyche can not be well perceyued. Chap. vii.

In this kynd of woundes the cure is done two ſundry wayes. Firſt if the place may ſuffer it without hurt of vaines, arteries, & nerues, is to delate the wounde with tentes of gentian or of a ſponge and after make it open & large wyth inficion. The other is if the firſt waye cannot be done without daunger, to put into the wound a

ꝓbe or ware candle, vntil you come to the end of the wounde, and make there an yſſue that by this way the matter in the wound may be clenſed with ſome mendificatiue lotion conuaied in to the woũd by a ſyꝛing. Let your rolling alſo be ſuch ẏ it be loſe at the oꝛifie of your woũd, foꝛ otherwiſe you ſhal kepe ẏ matter ſtil in ẏ woũd. Neither ſhall you in mundifiynge the wounde thurſt out the mater, foꝛ ſo doing you ſhal thurſt out the indigeſt matter in colour of blod & hynder much the cure of the woũde. As Bꝛunſwik maketh mention of a certayne Barbour who had no knowledge in Chirurgery, and yet wold take vpon him to ꝓactiſe. Thys Barbour (hauing a pacient wounded in the arme) did euery day thurſt out ſo much blonde and bꝛought ſuch accidentes to the parte, that yf Bꝛunſwyke had not foꝛtunatly come, the Barbours pacient had loſte hys arme. Suche is the fruictes of blynde Emperikes. You ſhall alſo aboue the wounde applye ſome defenſiue, and on the wound ſome mundificatiue, and make your iniections wyth a ſyꝛing vntill the water come foꝛth of the ſame colour it was put in. The water vſed foꝛ iniections is made in this maner.

Rec. Mellis roſacei. vj. vnces:

Roſarum rubearum. } ana iij. ounce.
Florum camomilli. }

Maſtiches

Mastiches. } ana j. ounce.
Ireos. }
Tharis. halfe a vnce.
Mirrhæ. j. dragme.
Vini albi. ij. pound.
Aquarū plātaginis vtriusq3. } ana, a pound.
Rosarum. }
Caprifolij. }
Foliorum quercus. }

An other more behement.

Rece. Aluminis. j. vnce.
Balaustij. } ana. j. dragme.
Nucum cupressi. }
Orobi }

A drying water.

Rece. Consolidæ maioris. viij. vnces.
Peucedani. iiij. vnces.
Aluminis. ij. vnces.
Aquæ fabrilis per filtrum destillatæ. iij. pounde.

Boyle al vnto the consumption of the third parte.

A mun-

Amundicatiue.

Rec Vnguenti egyptiaci. ij.vnces.
Aluminis. i.vnce.
Olibani. halfe a vnce.
Mirrhæ. j.dragme.
Vini rubei tvvo pound, bulliant pulliant.

Of wounds in the bones. Chap. viii.

The ſolution of continuitie in the bone is in diuers ſundry wyſe as fractures, ſplentes caries, and by wound: of which laſt we will onely in this chapter make mention. If the bone wounded doth hange to the panicle which inueſted & couereth the bone, then doe what you can to cauſe it to ioyne. But yf thys panicle be alſo cut, then will not the wounde be fylled wyth fleſh except the pæces deuided be taken awaye. And to the wounded bone you ſhall vſe Vnguentum aureum ex meſues prȩcripto. After you muſt applye mundificatiues and conſolidatiues ſet out in the antidotary, and ſee that you vſe in this wounde apte ligature and that it be open vpon the wound, that you may daily apply medicynes to the place wythout loſeinge of the roller. Furthermoze you muſte laye aboute the

wounde some defensatiue whereby the parte shalbe preserued from diuers & sondrye accidentes which might fall to the wounde. The Chirurgian must also haue regarde that the pacient keepe a moderate diet and that he be soluble in body. Which if it cannot be by nature, then procure it may be done by art. As by purgation, clister or suppositorie. And in all other thynges the cure of this wounde differeth not from the cure of other woundes.

Of a newe kynd of curyng greene and freesh woundes wyth balme. Chap. ix.

The healing of grene wounds by balme artificiall is in this wyse. Close the wounde and stiche it make it cleane w̄ a dry sponge and put of the baulme into the wound very hote and dresse it twise euery day. And here you must note that thys balme taketh not like effecte in al grene woundes. For the cure differeth accordyng to the countrie, complexion of the partie & place that is wou̇ded. For if the country be hote, the pacient colerike and the wound in the head, the baulme taketh not lyke effecte nor is to be ministred as afore is said. For the cou̇try beyng whote, and the pacient whote the wounde can not be curied w̄ balme which is also hote. And

It is a maximum in phisicke, that infirmities are taken away by their contraryes. Yow then shall the medicynes lyke in qualityes to the region and complexion, cure the infirmity? Except you wyll aunswere me it doth it apropietate totius substantie, which is nothinge so. What then, shall not Balme cure woundes in the foze named pacientes? Yeas verylye, and I wyll shewe you in what maner. Stitch your wound as is before mencioned, and mundifye it wyth a drye sponge not dypte in water and take away all the blode aboute it: then take Cotten and make a stuphe and dyppe it in Dyle of Roses and Balme not heate, of eche equall poztions and applye it to the wound. And defende the woundes wyth all diligence from accidentes wyth some defensiue: foz to Colorike persons in whote regions there commeth accidentes spedelye. The lyke cure shall be in woundes where as the boone is séene. Excepte that you must adde to the Dyle and Baulme, Turpentyne well washed and the stuphe beynge layde on the wounde, you maye further vse the emplaster wbych customably is occupyed in grene wounds. And yf the region be coulde, the pacient flegmatycke, and the parte fleshye then applye your Baulme whote, foz in those there folowe of course small accidentes, except it be by disozder of the pacient & fault of the Chirurgian

and

and great woundes in these persons wil sone be curied. For this artificial balme hath in him the vertue attractiue, conglutinatiue, & desiccatiue: his discription you shal finde in the antidotarie. Also in whote regions, colde complertions: and in colde regions, colericke persons shall soner be curied: then where both region & temperature of the pacient agree in whotnes. The like is to be vnderstand of the time of the yere. For ỹ colerik person being wouñded shal soner be curied with balme in winter, then somer. Also the wounde being dressed, there are thre kind of ligatures or roillings vsed as necessitie requireth. The first maketh fleihe in the wounde to grow & is called incarnatiue. The second doth expel such matter and superfluitie as combreth the wound & thys rolling is named expulsiue. The third reteineth & kepeth the sides of the woũds together, & such medicines as are applyed thereto and is called retentiue. Of them in our institutiõ of Chirurgerye we do make a most ample discours. And thus briefly and compendiously we haue passed ouer the principal woundes which may happen in the similer partes. Nowe tyme and order requireth that wyth the lyke methode we intreate of woundes in the instrumentall partes.

FINIS.

The ſecond booke of the Enchiridion, conteyning the curation of **woundes in the inſtrumentall parts:**

By Thomas Gale Maiſter in Chirurgerie.

ALthoughe it myghte ſeme ſufficiente for the generall cure of wounds to haue made mention of thoſe which are conteyned in the firſt Booke: yet ſeyng perticuler exercise in the inſtrumentall parts is both delectable and profitable: and is as it were a maſter which teacheth: I wyll indeuor my ſelfe to ſet out perticulerly the cure of woundes in the inſtrumentall partes. And I call an inſtrumentall parte, whych is not ſimple but compounded of the ſimilar, as the head, the eye, the hand, the arme, and ſuch like. And for becauſe I wil orderly intreate of them: I do deuide the body of man into .iiij. partes, that is to ſaye, into three ventricules, and that whych the anotomiſtes do cal artus, conteyning the armes and legges. The firſt ventricle containyng the animall ſpirits geuing ſence and motion to the whole bodye is the heade. The ſecond comprehending the vitall ſpirites is from os furculæ vntyll Diaphragma: where

where the inferior ventricle receyuing the liuer stomacke, splene, kidnyes, intestines, bladder and dyuers other partes doth begynne: and endeth at os pubis. And for because the soule is the most noble part of man and hath hys seat in the head, I wyll begynne wyth the woundes of the head first, and set forth suche thinges for the preseruation of this so principall a part as my poore knowledge and experience wyll extende vnto. And here loke not that I will waste tyme in rehearsing of weapons wherwyth the part is hurt as diuers do. For it helpeth nothing to the cure of the wounde, to say he was hurt wyth a staffe clubbe, sword, shotte, fall, or such like: but rather to loke to the wounde selfe: whether it be a simple wounde, or that it be compounde: whether it be contused, or els but cut: and so folowing the differences set out in the first Booke.

Of certayne generall precep-tes, necessarye to be folo-wed in the cure of woundes of the heade. Chap. i.

WOunds in the head are diuers and sondry, some are but simple woundes, beinge cut wout anye accidents or hurt of Cranium, som be with cutting also of Cranium. Some be contused and yet Cranium perfyte, other hap-

ꝑ eneth with the breaking of Cranium, some are with perishing of Dura, vel Pia mater, and losse of some substaunce of the braine, and others are wout. But for that I woulde you should know whether the Cranium, be fractured or not, I will giue you certain proper preceptes. If the contusion be great, yf he fall from anye highe place, or haue a greate stroke, if when he reteyneth hys breath there cõmeth out moistnes through the diuision or fracture of the bone, also vomitinge, vertigo, bleding at the nose or eares, the eies red and swolne, want of speche, a sharp feuer, & difficultie of makinge his braine: all these shewe Cranium, to be fractured. There is also another note to know Cranium fractured, and that is to streke on Cranium, ynke or Wastick and if there be any fracture, then in the place there wyll appeare blacknes, which is a most certayne token that ꝯ Cranium, is fractured. Also in your prognostication you must consyder these briefe sentenses. Greate breaken of Cranium, is perilous, and the wound in the braine or corruption of the Dura, vel Pia mater, is deadly and mortall. Yf the blacknes of Dura mater, whan it happeneth cannot be taken awaye wyth Mell rosaceum, it is a token of death. Also the Cranium, or brain wounded at such time as the mone is at the ful (that is when she is in opposyon of the sunne) it

is

is very perilous. And in curinge the wounde yf there be a tumor or swellyng and that same soddenly vanishe, it is perilous. But in the consolidation of Cranium, if the flesshe appeareth redde it is a good sygne. Lyke as if in the wound there be good digestion and no acidentes comming to the same. And for because in curing the wounds of the head there is diuersytie in workynge and diuers opinions: I thinke it good to set oute certaine documentes whiche I take oute of the famous Guido, whose wordes are these folowing. First saith he the wounides of the head w̄ breaking of the bone haue much difference from the wounides of the other members both for the nerues to Cerebalis Medullæ so noble a part, & also for the roūd and spherelike figure and forme of the head, which bindreth vnition and is vnapt for ligature and rolling. Secondly that in great wounides of the head it is nedeful for to obserue the commō intentions mencioned before in the treatise of Phleubotomie and purgiē. That the body be soluble which if naturally it chaunceth not, then by suppositorie, clyster, or gentle lenytiue, you must make it lose. Also ỹ diet thin. &c. Thirdly that in wounides of the heade the heare be shauen & take heede that no heare oyle or water fall into the wound which may let consolidation of the wound, and that to resist dolour both aboue & vnder: apply the white of an egge. And

Tract. 3. Doct. 3. Chap. 1.

after the beginning let thynges be vsed as is afore-
said to mundifie and incarnate. And rounde
about the wound alwais vse the vnguent with
bole armoniake & oile of Roses, that the dolour
& distemperance of the part be allwagied & al ap
ostimatiõ put backe. Forthly as you haue often
hard of Hippocrates, that all coldnes is hurte-
full to nerues, bones, and marowe, and also the
aire doth hurt and alter the principal members.
And therfore in winter whan the pacient is dres-
sed let the windowes be close shutte and a good
fire of coales, & dresse him wyth a candle & when
he is dressed put on his head a coyfe or cap made
of a shepes skinne. Fiftly if the wounde be come
to digestion and hath matter cõteined in it, that
it be remoued away with fine linte or cotten so
softly as may be, and this in winter must be but
ones, and in somer twise. Sextly that vppon the
tentes there be laide a soft spong to suck & draw
and receiue out the matter that it falleth not to
the braine. Seuently that you haue a role a yard
long and foure fyngers brode, and that you shal
rolle it vp within ij. handful of the ende & begin
the ligature at the forehead, and extende it to-
wardes to eares opposite to the wound and the
other parte to the eare nexte the wounde lea-
uyng the eares vncouered. And let the roulle
come downewarde to the fyrste byndynge and
doe it so manye tymes vntyll the heade be co-

uered

uered.&c. Eyghtly take hede yf there remayne anye skale of a bone, wasshe the wounde wythe Wyne. Yf there be no feuer gyue hym thys pouder folowyng.

Rec. Pinpenellę
Betonice
Gariophillatæ } ana.
Valerianę
Osmundę
Pilosillę, quantum de omnib. fiat pulius.

Last of all that the pacient lay on the side whiche leaste greueth him vnto there be founde matter in the wound: and then he muste rest on the wounded parte that the matter maye the more redily voide. Thus much in effect touching Giu do his counsaile. Also I wyshe from the first beginning of the wound vntil such time as there is no feare of apostimation ỳ you vse some mitigatiue as oyle of Roses thręe Vnces, Honnye one dragme mixe them together. And then you may also vse this pouder whych dryeth without corrosion or pricking.

Rec. Irios j. dragme.
Thuris
Aristolochię rot } ana ij. dragmes.
Corticū radicū papaueris. half a drame.

Sarcocollę Sang. draconis Mirtillorum Nucum cupressi	}	ana, ȝ. dragme and a halfe.

Make these in a pouder. Thus much I thought good to write before I entred the perticuler cure of organike woundes, being as guides & counselers to be followed thorow this holebooke. Now will I begin and show their methodicall cure.

Of symple woundes in the heade wyth cutting, which happeneth without hurt of Cranium, chap. ii.

IF the wounde be symple wythoute hurte of Craniū, or losse of substance: then is the cure of it like the cure of other woundes to stiche, rolle, incarnate, and cicatrize. But yf the wounde be wyth the losse of substaunce then you must dyppe your tents and couer your plegeantes wyth incarnatyues, and Cicatrize the wounde with your accustomed pouders, unguentes, emplasters, and other thyngs thereto belongynge. As touchynge stiching in the heade because manye speake agaynste it: I affyrme it to be not onelye profitable in small woundes, but also in great, most necessarye. For it kepeth the

the partes separated together, which rolling can not, it also causeth that the aire dothe not alter the part, whych where it chaunceth it is verye hurtfull. And here I except great woundes in the foze parte of the heade whiche maye not be stiched but on the syde, And putting in it oyle of Roses which doth both take awaye the payne of the nervous panicle inuestynge and coverynge Cranium, yf the wounde be so deepe and also it maketh the bones moze easye to be taken oute, and taketh away the sharpenes of Well when with it we intende to mundifie any inward panicle and defendeth from accidentes.

Of woundes in the head with cuttynge and fracturynge oz breakyng of Cranium, but not throughpercyng. Chap. iii.

The woundes chaunsing in the head by cutting and fracturing of Cranium, going not throughe the whole substaunce of the same is called Rimula. Thys wounde eyther is greate oz smalle, yf it be small it shall haue the same cure mentioned in the Chapter nexte goynge befoze thys. Foz in suche a wounde there is small generation of matter, and that ngendzed throughe hys grosse substaunce, cannot discende in the cut

or ryfte. But if the wounde be greate then is it eyther in the fydes of the head or vpper parte of the heade. If it be in the fydes, it hath alfo the fame cure that the woundes in the Chapter goynge before receyueth. Excepte that in the lower part of the wound there be put a tent wher by yf anye matter be retayned in the wounde it may the eafyer come out. But yf the wounde be in the vpper parte of the heade it maye not be ftiched for that nature there cannot purge her felfe. If the fracture commeth to the myddes of of the two Tables of Cranium, it is nedefull to take fheres called Rugines of dyuers bygnes. And as the bone of the pacient is vncouered you fhall vfe the greatter Rugynes, then after take thofe that are narrower and fo at length the narowefl of all, and thys fhall you doe at all times in the myddes of the two Tables. Thus fhall you fpeedely cure thys wound wyth dryying medicynes and tentes that fhall fucke and drawe out the matter.

Of woundes in the head in whiche Cranium is cut vnto the inwarde panicle, wythout loffe of fubftaunce. Chap. iiii.

This

THys kynde of wound wyll haue sometimes sparankes or sharpe peaces of bones and some are free from them and are euen without sharpe peaces of bone. Those that haue the sparankes doe hurte and offende that panicle which is called Dura mater. Therefore they must be taken away with a lenticulerand made smothe and euen and then is the cure of thys wounde lyke the other woundes in the former Chapter. For yf it be in the vpper parte of the heade you shall vse to mundifye and desiccate without stichen, yf it be in the sydes, then in the lower part of the wounde you muste put a tent as is aforesayde that the matter maye the easier come oute.

Of woundes in the heade contusyd wyth oute fracturing of Cranium. Chap. v.

IT is the proper scope of curyng this wounde to apply to it medicines that resyst flur and repell the matter back. Vsyng in the beginning after the accustomed maner ỳ white of an egge mired with oile of Roses. And so resoluynge the matter gathered, you shall vse Honnye and wine in which salt hath be nput. But if it come to maturation then you shall open it and vse the cure to it that is proper for apostumes and

such

suche medicynes as are mencioned in the gene-rall chapter of contused woundes.

Of woundes in the heade wyth contusion and where Cranium, is lytle fractured. Chap. vi.

YOu muste diligentlye looke whether in the place whereas Craniumis fractured, there are anye sharpe peeces of bones, whych yf there be, they must be remoued with the lenti-culer as is afore mencioned. Then you shall dresse the wounde and laye thereon softe silke wette in Honny of Roses and oyle of Roses and wyth your instrument you shall put in the lyn-nen cloth betwirte Dura mater, and Cranium. And laye on it softe tents wette in mel ros. and oyle of Roses and apply there on a lynnen cloth wette in the same, and on the wounde of the flesche put eyther dry linte or a soft spong to suke vp the matter and apply an head plaster that the matter, close not wyth in. After whichyou shall in Wyne made whoote, weete towe and presse out the Wyne wyth your hand, and laye that also on then vppon that put drye towe and rolle it softely that the thynges applyed, maye abide on the wounde. And when the wound is mun-difyed then leaue of the fyrste clothe, and vse the

heads

head pouder to make the wound incarnate and so with consolidattues and medicines inducing a cicatrice you shall proceede vntyll the wounde be perfytely cured.

Of wounds contusid with great fracture of Cranium, Chap. vii.

COntusyd woundes with great breaking of Cranium must be cured after this methode.

First you must shaue the here away, then wt an incision knyfe you shall cutte the place crosse wise or as other do vse, whiche is not so good after thys maner. Then rayse of the flesshe and make the fractured bone open and bare. And yf there folowe any flure of bloud, you must clence the wounde wyth lynnen clothes dipt in water and Vinegre or the white of an egge an if there be no flur of bloude fyll the wounde wyth drye lynt and dippe clothes in oyle and wine & applye it to the place and bynd vp the wound as therto belõgeth. Then if there folowethino accidentes which maye hinder the cure of the bone: open the wounde and let the pacientes eares be stopped wyth lint or cottẽ that he hereth not for making him faint harted & affraid. And let two mẽ stay his head with their handes, and then with your knife departe the bone or wyth the lenticuler.

But

But if this cannot be done both ſpedely & wyth out great payne: then ſet a trappen and bore it throughe ſo many tymes vntill it be ſeparated from Cranium, and you ſhall take awaye thys bone fractured fyrſt lifting it vp wyth an eleuatory vntill you may take it away with your nippers or fingers. Then you muſt make ỹ edgies of the bone ſmothe and euen. And after cure it in all caſes as you cure woundes where Cranium is fractured wyth the takynge oute peeces of bones.

Of woundes in the face. Chap. viii.

WOunds in the face are eyther in the fleſhy partes or not, yf in the fleſhie partes, the wounde is eyther dryе or moiſte. If in thy fleſhye parte and the wounde moiſte, you muſt of force ſtich it with a fine ſmal round nedle and fine thræd: but yf it be in the fleſhy part and dry you ſhal in the place of a roũd nedle vſe a ſquare If the wound be not in the fleſhy partes then in any caſe youmuſt leaue of ſtiching & in the place of it to ioyne the lippes of the wounde together you ſhall doe in thys maner. Take Sanguinis draconis calcis ex teſtis ouorum, Maſtiches, as much as is ſufficient make in pouder & temper them with Honny vntill it come to the ſubſtaunce of hony. Then prepare. ỹ. linen clothes accordyng to the length of the wound & ſpreads

of

of it vpon the clothes, and then vnto ether side of the wounde applye a clothe and suffer it to dryye. Then w̄ your needle take your stiches on both clothes and vnite , and ioyne the sydes of the wounde so euen and ryght as maye possible be, whyche thynges done laye on the wounde thys pouder folowyng.

Rec. Sanguinis draconis. j. dragme.
Olibani. } ana .ij. drams.
Cacis è testis ouorum. }

Make these in fine pouder and temper them with the whyte of an egge and laye it on towe. And aplye it to the wound. After you shall heale it with the same plasters, vnguents, pouders, or balme as you accustomably do another wound.

Of woundes in the eyes. Chap. ix.

ALl woundes in the eyes or aboute the eyes are daungerous both for the nerenes of the brayne, and also for perrill & losse of syght. Yea it happeneth often that through woundes about the eies the nerues optick haue ben stopped & there haue also folowed somtimes a cataracke. What is then to be loked for, whē as the wound happeneth in the substaunce of the eye: Galene maketh mentiō of one hurt in ỳ white

of

of the eyes and much moyſture flowed out and yet the pacient reſtored to hys ſyght. In like ſort doth Brunſwycke rehearſe the lyke hiſtorye of two children wounded in the eye and muche moyſture came forth and he curyed them wyth thys water folowyng. But theſe cures are de raro contingentibus.

Rec. Aquarum fęniculi
Roſarum
Polij
Eufragię
Rutę
ana halfe a vnce.
Albuminum ouorum. q.ſ.

Theſe did he temper and myre togyther and applied it to the eie: As he affirmeth to the great comforte and reſtoring of ſight in the children aforeſaid. But I will go to the cure of woundes of the eies which is without periſhing of ſight. If anye be wounded throughe the vpper or nether parte of the eye ſo that it hange downe, then wyth a nędle beyng bent croked, aptelye for the eye and a ſylke threede well waxed you ſhall beryc Fynele ſtyche it vp that the tumour of the eye maye be the leſſer.

And

And put into the sighte of the eye the water before mencioned, and make a Plaster of the whyte of an Egge, Sangui. draconis, and frankencens and laye it rounde aboute the eye, but beware that it touche not the eye selfe. Also you maye heale it with Baulme, but be diligent none fall into the eye, and euer vse the water aforesayde, whiche is a wonderfull defensiue and letteth accidents to come to the place.

And this shall you perfitly cure the eye. And yf the wounde come with arrow head, or sworde, you shall procede with oyle of Roses, and yf any thing be fired in the wounde, worke after the doctrine set out in that Chapter. And when the thyng fired is out, fyll the wounde wyth oyle of Roses, tempered with the yelke of an Egge warme, and mundifie the wound with mel Rosarum, farina Hordei, & Fenogręci, after applye incarnatiues, and heale the wound with the plaster vsed in greene wounds. But if it be woũded w̃ nedle or thorne, vse the mundificatiue and defensiue aboute the eye, and washe the eye with this colyrium folowing vntyll he be healed.

Rec. Boli armeni .vnce. ij.
Thusię
Sangui. draconis } ana. vnce. j.
Gummi arabici

D.j. Make

Make these in pouder, & put it into a quarte of good rose water, & set that glasse in warme water three houres. Then put to it wyne of pomegranettes, & let it remayne in the warme water (the Alchimistes call it Balneum Mariæ) a whole daye. After strayne it, and put of it morning and euenyng into the eye. Also put on it this plaster folowyng.

Rec. Succi Semperuiui, Solatri, } ana. iiij. vnces.
Boli armeni,
Dragaganti,
Myrrhæ,
Gummi arabici, } ana. iij. dragmes.

Make that is to be brought into pouder, into pouder: and dissolue the Gummes in vinegre, and make thereof a Plaster, and if through chaunce there falleth into the eyes, heare, dust, motes, or suche lyke, open the eye, and mylke into it the mylke of a woman. Also it is verye good to vse this medicine plasterwyse, as the other before mencioned.

Rec. aquarum solatri, Semperuiui, } ana. ij. vnce.
Tutiæ præparati, halfe a dragme.

Tozali

Coralli rubei,
Margaritar. nō perforat. } ana. j. scrup.
Camphuræ, x. graines.
Dragaganti,
Gummi arabici, } ana. viij. graines.
Cerusæ lotę, v. graines.
Lactis mulieris,
Albuminis ouorum, } ana ij. dragmes.

Myxe these together and vse it plasterwyse, as is afore sayde.

Of woundes in the eares and lippes. Cap. x.

There is nothing in these woundes proper to it selfe, but is cured as other greene wounds, that is to saye: First stiche it and lay thereon the pouder mencioned before, made of Frankencense, sangui. draconis, and lyme of Egge shelles, &c: and aboute the place lay some defensiue. And the iij. day applye oyle of Roses and the yelkes of Egges. After mundifie the wounde with Mel rosarum, farina hordei, Turpentine, Sarcocolle, & Myrrhe. Then heale it vp with balme, or the plaster vsed in greene woundes: regarding alwayes if need requires to purge, let blood, bore, and scarifie.

Of woundes in the nose. Cap. xi.

The Nose is sometyme cut of, and sometyme hangeth by the fleshe of the lippes. If it be cut of, there is no cure to be vsed, for the organicke partes deuided, wyll not receyue vnition and ioyning againe together. If it hange by the fleshe of some other parte, then stitche it aptly and reduce the nose to hys naturall forme. Then put into the nostrelles tentes of Wolle, or Goose quilles, that the head maye bothe purge it selfe the better, and also that he maye the easier drawe vp the ayre. And on the wounde selfe, laye the pouder hereafter folowyng. Then laye thereon the whyte of an Egge with towe tempered with some of the foresayde pouder, and after bynde and rolle it, whiche thynge that you maye the easier and more aptlye doe, let hym put on his head a cappe or queyfe, and sowe thereto your bande, and so maye you procede in the curation of this wounde, with the balme or plaster vsed in greene and freshe woundes. The pouder applyed to the seame of the wounde is this.

Rec. Thuris
Calcis ex testis ouorū } ana. ij. dragmes.
Sangui. draconis

Wire

Wyre them with the whyte of an Egge tempered with oyle of Roses, the defensiue maye be in this maner folowyng.

Rec. Succi solatri } ana.vj. vnce.
Semperuiui }
Olei rosacei, iiij.vnces.
Boli armeni. ij.vnces.
Aceti j.vnce.misce.

An other defensiue.

Rec. Vitellos ouorum. ij.
Sang,draconis }
Dragaganti }
Gummi arabici } ana,ij.dragmes.
Boli armeni. }

And yf you woulde haue the skinne layde, then you may lay on it this vnguent folowing.

Rec. Thuris, } ana.j.vnce.
Myrrhæ, }
Farinæ fęnogręci, ij.vnce.
Resinæ, vj.vnce.
Lithargyri auri, halfe an vnce.
Olei oliuarum, ij. pounde.
Ceræ, iiij.vnce.

Wyne these, and make therof an vnguent, and vse it, as necessitie shall require & the discrete Surgian thinke conuenient.

Of woundes in the mouthe. Chap. xii.

The wounde of the mouthe hath nothing proper to it selfe, but is stiched, defended, mundified, incarnated and cicatrized, after the maner of other greene woundes, therefore it were superfluous to make a vayne rehersall of the cure & medicines, seyng it is playnly set out before, and medicines prescribed which are thereto conuenient.

Of woundes in the necke. Chap. xiii.

WOunds in the neck somtyme are made in the fleshye parts only, somtyme in the ligaments, cordes, & nerues, somtyme in ỹ great vaines & arteries, & sometime in the passages where as brethe, meate & drinke, goeth in. If it be in the flesshe, it differeth not frō the cure of other græne wounds, but wt stichyng pouder wine & other accustomed medicines it is cured If it be in the ligaments, cordes & vaynes, take deepe stiches in the fleshye parts about the ligaments, cordes & nerues, & then cure it with oyle of ground wormes, & the plaster vsed in greene

wounds. If it be in the great vaynes & arteries there is great perill, through the great flure of bloode, stiche the vaynes and arteries, & vppon them laye this pouder, whiche Galene vsed in the lyke great flures of bloode.

Rec. Thuris, j.vnce.
Aloes, halfe an vnce.

Make these in pouder, and incorporate them with the whyte of an Egge, vntyll it come to the thicknes of honny, then put to it the heares of an hare, and apply it to the wounded vaynes or arteries. Or you maye vse in place of it, thys pouder folowyng.

Rec. Colophonij, iij.vnces.
Consolidæ maioris,
Lapidis æmatitis,
Mastiches,
Sang. draconis,
Olibani,
} ana. halfe. vnce.

Make these in fyne pouder and vse it as the other afore. Afterwarde you shall in all cases cure this wounde as is mencioned in the firste booke of vaynes and arteries wounded.

But if the wound be in the passages of ayre, meate & drynk, you shal stich it & vse the pouder, & vse it outwardly as other woũds: but inwardly you shall geue them Diasymphiton & Diadragacantum to licke with their tongue, and when the wounde beginneth to digest, then mundifie and incarnate it with this medicine folowynge.

Rec. Mellis rosati colati, iiij.vnce.
Farinæ Hordei, v.vnce.
Terebithinæ, iij.dragmes.
Ceræ, Resinæ, } ana. ij.dragmes.
Thuris, Mastiches } ana j.dragme.
Mirrhæ, Sarcocollæ, Mumiæ, } ana.halfe a dragme.
Olei Mastiches, iiij.vnce.fiat emplastrũ.

Hetherto haue we shewed the cure of woundes organicall, which may happen in the first or vppermost Ventricle: Now in lyke maner we wil direct our penne, & set out the cure of woundes whiche commonlye chaunce in the seconde or midle ventricle.

Of

Of woundes in the brest. Cap. xiiii.

WOundes in the Breste either are without perceing through the same, or ells they are into the brest. If they be without perceing into the body, they are cured as other greene woundes, with towe dipte in the restrictiue pouder, and layed to the wounde, and with the Iewes plaster, or the plaster incustomed in greene woundes, or elles with Balme. But if the wounde be perceing through, then it is eyther with bloode falling inwardly and hurte of some inwarde part, or elles it is without flure inwarde, or perceing of any inwarde member. Howe you shall by signes knowe if anye of the inwarde partes be hurte, I haue set oute at large in the fyfte Chapter of the first booke. As touching the cure of woundes in the breste, which are without hurte of any inwarde parte, you shall in no wyse tent them, but stiche the wound, & with stukes dypt in wyne, vnguentes incarnatiue, emplasters, and conuenient rollyng, heale it vp lyke another wound. But if it be perceing through, and he bleed inwardly and some of the inward parts are hurt, then with al expedition and haste, you must labour to bring out such bloode and matter as is within conteyned, and you must put in a tent large & long, on

whiche you shall streke oyle of Roses, & fasten a threde to the tent that it goe not in, and so put the pacient to great payne. The pacient must be layde vpon a borde on the woũded side, & so moued to & fro that the matter maye come out at the wound, & make iniections of wyne or Mellicratum with a syringe, diligentlye markinge the quantitie and colour of the wyne or Mellicratum when it cometh out, for if it be lyke in quantitie & colour, then you neede no more to make iniections for all the matter within conteyned is quite voyded at the wounde: Or you may boyle in oyle of Camomile, Lupines, mel rosarum, & Myrrhe, vntyll the iij. part be consumed, then strayne it & make iniections with a syring as afore, and then shorten your tent, and apply this mũdificatiue folowing to ỹ wound.

Rec. Mellis rosati colati, halfe a pounde.
Mirrhæ,
Thuris,
Sarcocollæ, } ana. halfe an vnce.
Teribinthine, tvvo dragmes.
Farinæ hordei
Fęnogręci. } q. su. fiat emplastrũ.

Then you maye giue him euerye morninge halfe a pynte of the potion warmed, whiche is

vsed

vsed in these kynde of woundes, whose compo-
sition is in this sort.

Rec. Centaurij minoris,
Costi,
Nepitę,
Garyophillatę,
Pinpinellę,
Polosellę,
Summitatū canabis,
Caulium rub.
Tanaceti,
Rubię,
Glycirrhizę,
} ana. vj. dragmes.

Woyle all these together in sayre runnyng
water vntyll the consumption of the thyrde
parte. Then strayne it, and put thereto of clari-
fied honnye so muche as shall bee sufficient to
make the potion pleasaunt in tasse. Yow musse
also geue hym to licke of Diasparmaticon, Dia-
dragagantū, Diasympiton, or Diacodion, all do
comforte and strengthen the Brest. And when
the wounde is mundified, and the matter dige-
sted, then you shal heale it with the plaster called
Diapalma or Phenicinum, and with this pou-
der folowynge vsyng apte and conuenient rol-
lynge, accordyng to art.

Rec.

Rec. Mastiches,
Mirrhæ,
Thuris,
Sarcocollæ,
Sangui. draconis } ana. j. dragme.

Make them in fine pouder, and thus haue I shewed you the proper cure of suche woundes as maye happen in the midle ventricle, beynge not deadly and mortall, which do vtterly refuse all kynde of curation.

Of woundes in the thirde & lowest ventricle, called vsually the Belly. Chap. xv.

There are properlye three sundrye simple woundes in the region of the belly according to which there is three diuers cures. For either it is a smale wounde not perceing throughout elles it perceth through, and so doth hurte of necessitie some of the inwarde partes, but yet they come not out: Or elles it perseth through with hurte of the inwarde partes, by reason of whiche they come forthe. You shall knowe what parte inwardlye conteyned is wounded by theyr proper sygnes set out in the the fyfte Chapter of the fyrst booke.

As

As touching the cure of these woundes, I wyll seuerally intreate. If the wounde in the Belly be but in the fleshye partes, withoute persyng through, then you shall stiche it, and heale it with Balme, or the plaster accustomed in greene woundes, without further difficultie. But if the wounde perseth through Siphac and Myrach, and yet hurteth no other of the inward membres nor they come not out, then the cure of this wounde shall be as is aforesayde in all thynges except stitchyng. For in the first stiche put the needle through the one lyppe of the wounde, but touche not Siphack: and after put the Needle through the other lyppe, and through Siphack and Myrach, and make a knot vppon the threede. In the seconde stitche thrust the Needle through the one lyppe, and and through Mirach and Siphack, but in puttyng the Needle through the other lyppe, you shall not touche Siphack but Mirach, & make a knot without, and so procede orderly vntyll the hole woūd be stiched. And this is it that Galene sayth, sowe Siphacke to Myrach, because it is a neruous panicle, and without blood it can not of it selfe take consolidation. But yf any of the inwarde parts, as the stomake, Lyuer, Splene, Intestines, or Bladder, be wounded, and yet by reason of the smales of the wounde, they come not out, nor can not cōueniently be taken

forth

forth, then you must with muche wisdome and discretion amplyat & make the wounde larger, and if the wound be in such partes as are to be stitched, as the bottome of the stomake, or intestines, then they shalbe sowed as the Skinners do accustome ouer the hand, and put vppon the seame this pouder folowing.

Rec. Olibani,
Mastiches,
Dragaganti
Gummi arabici, } ana. j. dragme.

Sang. draconis
Mumiæ, } ana. half a dragme.
Misce fiatq3 puluis subtilis.

And then you maye proceede to the outwarde wounde and stiche it and let the threede of the inwarde wounde hange out at the outwarde wounde, that as inwardelye it doeth consolidate, so you may take awaye the threede and applye to the outwarde wounde this pouder folowynge.

Rec.

Rec. Sanguinis draconis,
Olibani,
Calcis è testis ouorū, } ana. half a vnce.

Make these in pouder and vse it as is afore saide, & in all wounds of the inwarde parts giue the pacient the wounde drinke specified in the xiij. Chapter of this booke. Also Glisters made with stipticke wynes, are meruelously commended, in lyke maner is this potage or brothe muche commended.

Rec. Aquę pluuialis vel fontanę,
Furfuris treticei, q. su.

Let these boyle one houre then strayne it, and put to it these pouders folowyng, and geue the pacient to eate thereof .iij. or .iij. tymes a daye or you maye prepare him brothe made with a chicken yf he be muche infebled & weake, & put of the foresayde pouder into it, but if Virbus be wounded & corrupted, then sayth Galene, let the blacke & corrupted partes be bounde with a threde or corde, & cut away al that is so bound, & after the stiching of the belly, let the ends of the corde hange out, at ỹ neither part of the woūd. But if the wounde be through percing wythout hurte of some inwarde parte, & commynge forth of the same, then in this cure there are iij. ententions to be obserued.

The

The firste is to put suche partes in their proper places as are come forthe. The seconde to stiche or sowe the wounde. The thyrde is to applye apt medicines. And the fourthe is, that none of the inward partes suffer dolor or tumor, but be defended from accidents. The first intention is brought to effect, if the wound be bigge & wide enough, that with softe and gentle handlyng, they maye be put in theyr due place. But if by this meanes they may not be put in, eyther for the strayghtnesse of the wounde, or elles because the partes be swollen or inflamed, then you muste worke in thys maner. That is to saye, if the wounde be to strayte, then you shall enlarge it aptly with a conuenimnt instrument. But if they maye not be put in, because the partes are swolne and inflated, then you shall labour with continuall fomentations to put awaye the same, whiche spryngeth for the more parte of coldnesse of the ayre. Then take softe Sponges dipte in warme water, and foment the intestines, and after foment them with astringent Wyne, whiche is muche better then the water, and doth a great deale more strengthen and comforte the intestines. The seconde intention is performed with softe and gentle handlinge & compressing the Bellye beynge certayne that the members without be rightly placed, then conueniently

to sow and stich vp the wound according to art. The thyrd intention which is done by application of medicynes, is to lay that comfortable pouder on the wound whose description I showed in this chapter aboue. Also stukes with wine, incarnatiue medicines, emplasters, and other conuenient medicines & roling as are according to art. The fourth intentiõ of the cure is done with soft wolle wette in warme oile and lay it about the region of the flanks, and giue him clisters of oile Wille or Camomill: & also vpon the wound selfe to power of the same oiles & appiye emplasters made with fenegreke, Linesede and althea. Or you may boile wine and salt with as much flower as wil suffice to make it thicke, and apply it as hote as he may suffer it vpon his rolling and ouer all the partes that suffereth payne. And when thys is cold then vse an other, and so do so many tymes vntil the dolour & paine ceaseth And as touching the matter if anye remayne within after the stiching & curing of the wound, there is no great regarde to be had because nature doth digest and resolue it: and if there be any multitude she sendeth it to the flankes, an then the cure of it, differeth not from the cure of other apostumes whych happen in the flankes.

Of wounds in the bladder, yarde, and testicles. Chap. xvi.

WOundes in any part of the bladder except it be in the necke of the same (whiche throw his fleshines wil receyue consolidation) are incurable. But those that are in the neck of the bladder, yarde, or testicles, haue the same cure that other grene woundes haue. You may verye well lay on the woundes of these partes, this medicine folowing.

Rec. Mellis rosarum. ij. vnces.
Olibani
Mastiches } ana. ij. dragmes.
Dracaganthi

Make these in Pouder and myxe it wyth the Mel rosarum, and lay it vppon the wound: for it doth both mundifye and doth also defend the part from accidentes yet yf for the sensibilitie of the part, there happen great dolour and payne, foment the parte wyth Oyle of Roses warme. And doe in all other thynges, as in the cure of greene woundes.

Of the woundes in the partes called Artus, conteynynge the armes and legges: and fyrst of the woundes in the armes. Chap. xvii.

These parts named Artus hath their beginning at the shoulders & so streacheth vnto the hands: and beginneth again at Ischion and extendeth vnto the ende of the toes of the fœte. The woundes in the arme haue no peculier cure to it selfe from other wounds, more then that the woundes in this part must haue ỹ most suerest and strong kind of stiching you cã diuise, because of the bygnes and ponderousnes of the arme. If the wound be in the flesshe, then cure it after ỹ second chapter of the first boke. If in the vaines & arteries, then folow the method set out in the secõd chapter of the same boke. Like as if the nerues be wounded, or els the neruous places as the ioynts, & heads of the muscules, the ligaments and tendons & such like. &c. you muste obserue the doctrine conteined in the forth chapter: & if the wonnde be in the bone you may vse the like curation, that I haue taughte in the, 9. chapter of the same booke. Furthermore yf the wound be both in flesh, vain, arterie, and sinow, then you must folow all the preceptes set out in the. 2. 3. 4. chapters. And compound & mixe your medicines together, according as the wounde is

ſn more parts then one. And if after the cure of the wounds in the ioyntes (as manye times it fortuneth) there are any knots or hardnes lefte wherby the ioyntes haue not their free motion, then you ſhall take awaye thys accident wyth thys plaſter folowing.

Rec. Lithargyrij iiij.vnces.
Muſcilaginis fęnogreci } ana viij.vnces
Sem.lini.
Muſcilag.Maluiſcici vj.vnces.
Reſinę xvj.vnces.
Oleorum camomillę } ana,j. pounde
Oliarum } and a halfe.
Cerę vj.vnces
Farinę fęnogręci } ana,ij.vnces.
Sem.lini.
Maſtiches } ana,j.vnce.
Thuris
Axungie
Pingud.gallinacęę } ana.ij.vnces.
Anſerinæ
Anatis

Make of theſe a playſter according to art, and apply it to the knottes and it wyll reſolue them and put them away.

Of

Of wounds in the thighes knees and legges. Chap. xviii.

THe same cure that is required to the woundes in the armes, is also vsed in woũds of the thighes and legges. But the woundes that happen in the ioyntes as in the elbowes, knees, and other like be most perilous and dangerous, because of the cordes, ligaments nerues, and sinowie partes which being wounded bring most grieuous paines, and dangerous accidentes. Wherfore beside the cure set out of wounded nerues and sinowie partes in the forth chapter of the first boke: you must with all diligent skil, labour to kepe the wound from paine and accidents: by purging, letting bloud glisters, diet, repercussiues, and defensatiues & medicynes that doe cease dolour: amonge other thys is one.

Rec. Olei rosacei iij. vnces.
Lumbricorum terræ ij. dragmes.

Make the wormes in pouder, & mixe it with the oile & being made hote dyp cotten in it and lay it to the wound so hote as he may suffer it. Then vpon it, you shal lay a linen cloth. iiij. fold dipped in wine in the which these herbes folowing are boiled: then wette your roller also in it and rolle the member accordynge as it is showed in oure institution of Chirurgerie.

Rec.

Rec. Piloſellę
Arthemiſię
Betę
Herbę candelę } ana.M.j.
Vini.optimi.iij.pounde.

Alſo to defend the place from accidentes thys defenſiue folowing is right precious and good.

Rec. Olei roſacei iiij.vnces.
Boli armeni. j.vnce and a halfe.
Terræ ſigillatę
Aceti } ana halfe an vnce.
Caphurę halfe a dragme.
Succi Solatri
Semperuiui } ana j.dragmę.

Myxe al theſe together in forme of an vnguent & vſe it about the wound. The other medicines hereto belonging you ſhal finde in the antidotarie and alſo in the furth chapter of the firſt boke. and thus I haue ſet out to you both briefely and plainly the cure of woundes in the inſtrumental partes: and alſo wherin they differ from the wounds in the ſimiler partes. Now wil I ſhow you the cure of wounds which happen through biting of a mad dogge, or ſtinging with a ſnake, adder, ſcorpion, or ſuch like; and then wil finiſhe this ſecond booke.

Of woundes commyng thrꝛough bittinge of a madde dogge, stinging with a snake, adder, scorpion and such like. Chap. xix.

ALthoughe the cure of thys wounde rather doth appertaine to the Phisition then to the Chirurgian, yet (requiring no small parte of this art to the cure of the same) I wil shewe the cure of it accordinge to the most approued authers Greckes, arabians, and Latinestes. And for because all virulent bytynge of venemous beasts & serpentes haue well neare one cure, I will shew the way and maner to cure the biting of a madde dogge, vsing it for an example to follow in the curation of the rest. Galene in the .13. booke of his therapeutike methode, sheweth two indications in curing these woundes, the one is the euacuation of that virulent liquor, the other is the alteration of that which causeth dolour & paine. The euacuation of the virulent liquor, is done by whoote medicynes, whiche doe attracte and drawe. Amonge whiche Aetius dothe mernailously praise theriacam Andromachi, made plaster wise and applyed to the wounde. Also he vseth a playster vnto the same beynge of mervaylous effecte whose composion is in thys sort folowinge.

Rec.	Argenti ſpumæ Ceruſę Reſinæ.	ana, j. pounde.
	Olei veteris.	iij. pounde.
	Ceræ	vij. vnces.
	Ammoniaci Galbani	ana, iiij. vnces.

Make of theſe a plaſter according to arte and apply it to the wounde. Alſo they vſe to bore the wounde and to cauterice it, eyther with an hote yron, or with ſome canſticke medicine. Alſo many vſe to pull of the fethers from the rumppe of an henne, and holde the rumppe to the wounde to ſucke and drawe out the venome. Cornelius Celſus, doth much commende ſalt to be rubbed on the wound. Guido hath a plaſter very ſharp, but yet much commended, and is made in thys maner.

Rec	Galbani Sagapeni Opopanacis Aſsę fetidæ Myrrhæ Piperis Sulphuris.	ana, halfe an vnce,

Sercoris

Stercoris columbini } ana, ij. vnces.
Anatis }
Calaminthę } ana. j. vnce.
Mentastri }

Dissolue the Gummes in wyne, & with honye & oile make hereof an emplaster. Take also diligent hede to enlarge the woũd & kepe it open at the left .vi. dates. And prouok matter to flow out as much as is possible: & when you suppose the venome to be all drawen out, then you shal with mundificatiues, incarnatiues, and medicynes that do cicatrize, heale the woũd. But you must not forget to apply medicynes inwardly against venome called Alexipharmaca, which of their property do resist poison. Among which Galene in hys .vi. booke intituled de facultatibus simplicium medicamentorum, resyteth this medicine folowing to be of most meruailous vertue against the biting of a madde dogge.

Rec. Thuris. v. vnces.
Gentianę x. vnces.
Cancrorum fluuiat. xx. vnces.

Make these in pouder and giue hym .vj. spone full of thys pouder in fountayne water for the space of foxtye dates. And vnto the wounde selfe Galene sayth, hys master Aschyion vsed thys playster folowing.

Rec. Picis. j. pounde.
Aceti acerrimi Sextarium italicum.
Opopanacis. iij. vnces.

Myre them and make them in a plaster according to art. This is the methode of curing these kind of wounds, and these be the chiefe and principal medicines: which like as diligently I haue collected and gathered out of the principall authours writting of the cure of these kynde of woundes: so wishe I them to put it in proofe when necessitie requireth, and also to take thankefully these my labours and paines.

FINIS.

The thyrde Booke of

the Enchiridion. Setting out the remouing of **ſuch accidents as happen to wounds:**

by Thomas Gale Maiſter in Chirurgerie.

NOw that we haue brought to an end and ſhewed the methodicall cure of woundes as well in the ſimiler as alſo in the organicall membres of mans body: & haue ſet out diuers and thoſe both excellent & alſo approued remedies for the ſame: I thinke conuenient in this thyrd booke to ſhow the perfit curation of ſuch accidentes as do accuſtomably follow in woundes, eyther throughe the nature of the wound or vndiſcrete vſage of the pacient, or els through the errour of the Chirurgiã. Theſe accidentes are called of the Greeke writters Symptomata, And be ſuch, as when they happen in woundes you ſhall neuer cure the wound before you haue quite put thẽ away. And the accidentes which commonlye happen in woundes, for the moſte parte are theſe folowinge . That is to ſay. Dolour, Inflamatiõ, Diſtemperance, a feuer, pruritus, conuulſiõ, the palſey, Sincope, and alienation of minde. Of theſe, ſo breifly and exactlye as I can, I wil in order make mention willing this booke to ſupply onelye the place in tyme

time of nede, where the learned Phisitian cannot be had. And first we wil beginne wᵗ that accident which is called dolour or pain in wounds.

Of Dolour in woundes, and the aswaging the same. Chap. i.

This accident called dolour, paine or grefe, bringeth a flur of humors to the wounded part, & stereth most greuous accidentes, as phlegmone other wise called inflāmation, apostemes, and such like. Yea and that in those bodies which are pure and free from excrementes. Wherfore with all diligence you must labour to ease the Dolour, or at the leaste to mitigate it somewhat, appliyng to the place, fomentations wᵗ oile of roses warmed, mixed, and tempered with the white of an egge. But if the paine be so vehement that wᵗ this medicyne it will not be mitigated: And that you are constrained to vse some stupifactiues, you shal make your fomentations wᵗ oile of popie, and if great vrgent cause constraine you, you may adde a litle opium to it or Oile of mandrage. There are other who dos much commende this emplaster folowing.

Rec. Radicis Solani ij. vnces.
Foliorum maluæ M. ij.
Furfuris triticei iij. vnces,
Olei rosacei, q. s. fiat emplastrum:

Also

Also other do apply to the affected part an emplaster made of bread or whete flower boiled in milke and some oile of Roses. And these ceaseth the dolour & paines two wayes. Both in resolving som part of the matter gathered by reason of the flux: & also in aswaging some what the vehemecie of the paine by the qualitie of the medicine. But of the medicynes, whych do aswage and cease dolour you shall haue it more at large set out in the antidotarie.

Of inflammation and apostema tion. Chap. ii.

That which the greekes call phlegmone, we vsually terme in our language inflamation. And is no other thing then a vehement heate stirred in any part of the body through the force of the humor flowing to ỹ part. There are fiue intentions to be folowed in the cure of an inflãmation. The first standeth in the righte order of diet, the second in ceasing the flux or diuersion of the antecedent matter. The third is in euacuation of the matter collected & now impacte in the part affected. The fourth standeth in the correcting & putting away of accidentes. The first intention is fulfylled in the right vse of the syre thinges called Non naturales, as in the pureues and temperatnes of the aire. The meate and drynke could moyste and smalle. To flee exercise, and to vse quiet and reaste of bodye.

To

to vse moderatnes in slepinge and watching, to beware of surfiting and layng as they say gorge vpõ gorge. To kepe alway the body soluble and lose. To flee all vehement perturbations and affections of the minde, as anger, contention chiding and such like. Last you must abstaine from Venus seruyce as from the greatest pestilence that may be in this diseace. The second intention which is in ceasing and diuertion of the matter that flowеth, is by opening a vain in the contrarie side, if the age and strength of the pacient can sufferr it. Also apply medicines to repell and driue backe, amonge whiche Galene prayseth Oxycraton (that is water and Vineigre boyled togither) and foment the place with a spong dipt in it, also you may boile in some astringēt wine, the rine of a Pomegarnet and foment the place therwith. Or els to apply to the place inflamed cataplasme which Galene in his seconde booke ad Glauconem doth so much commende whose composition is in thys maner.

Rec. Semperuiui
Maliconj. } sing q.s.
Sumach.

Boyle this in wine vntil it come to the forme of a cataplasme. Also Auicenne in his 3. fen. forth booke

boke. First Tract. Chap. 3. describeth another of muche effecacitie. Hys composyton is in thys forme.

Rec. Succi Semperuiui j. pound.
Vini nigri half a pound.
Farinę Hordei iij. vnces.
Malicorij } ana. halfe an vnce.
Sumach }

Boile these and make therof an vnction. But or you boyle these, you must make the malicorium and sumach in pouder. The thirde scope in euacuating that is collected in the beginning of inflamation, is done wyth repercussyue medycines, and to mixe with these suche as doe digest the matter, among which this is one.

Rec. Rosarum. } ana. iiij. vnces.
Florum camomillæ }
Sapę j. vnce.
Aquę fontanę. j. pound and a half.

Boyle these and make an emplaster of them. But if the inflamatiō be in augmento then you shal mixe with your digestiue medicines that represse and letteth the flux. But when the inflamation is in statu then mixe with the forsaid medicines,

medicines, medicines that doth somewhat mitigate. As oile of roses. Also you may vse this emplaster which in this sort folowing is described.

Rec. Parietariæ, Maluæ } ana, M.j.
Furfuris, Farinæ volatils } ana j.vnce.
Fenogreci, Anethi } ana ij.vnces.
Olei camomillæ vj.vnces.

Boile all in wine while they come to the substaunce of an emplaster. There is also another excellent plaster which Galene vseth in the Vigour of an inflammation and is thus made.

Rec. medullæ panis frumentacei j.pounde.

Let it stepe in whote water for the space of an howr, then straine it and put to it.

Mellis optimi iij.vnces.

Make of these an emplaster and apply it to the inflãmation. But yf the inflãmation be as they call it in declinatione you must only vse medycines to digest which may euaporate the matter remaining: yf the inflãmation doth ende by euaporation or discussion. But if it turne into an apostume then you muste vse medycynes to suppurate, to open, and to mundyfye,

of

of which you shall haue a large discourse in my booke of tumors agaynst nature: and also in my booke of curyng vlcers. The fourth scope of remouing or rather defending the inflammation from accidentes, as dolour, feuer, apostheme, and such lyke, requireth diuers and sundrye remedies, whiche because they be accidents also chauncing in wounds, I wyll entreats of them in their proper Chapters.

Of remouinge and takinge awaye distemperaunce in woundes. Chap. iii.

That distemperaunce whiche happeneth to mans body, whether it be hote, colde, moyst or dry, or els cõpounded of these simple, Galene & al the Grecians comprehend vnder ŧ name of Dyscrasia. Of which if to the wound there commeth a whote disposition, which you maye easely coniecture by the great rednesse and vessication you muste infrigidate the place not with Henbaine, or Mandrake, but rather with Roses Plantaine and vngnento albo, whiche doe as well desiccate as moderatly make coulde. But if the distemperaunce be colde, which you maye Iudge by the softnes and leadye colour of the skynne: you shall put these away by medicines

contrary in qualitie, whiche doe moderatlye heate. So that you maye not applye Rosen, Piche, or Aspaltum, but wyne, vnguentum nigrum, or fuscum, or Basilicon. So in lyke maner if the wounde be to moyste or to drye, they muste bee cured by theyr contraryes. And here is to be noted that if the distemperaunce be in heate & moysture, or in heate and drynes: in colde and moystenes, or colde and dryneſſe, then your medicines vsed in the simple distemperatneſſe, muſte be mixed together contrarye to the compound distemperaunce.

Of conuulsion whiche happen in woundes. Chap.iiii.

SPasmos whiche we call conuulsion is no other thynge then a depravate motion chauncing to the voluntarie facultie of movyng through sickennes. Conuulsion chaunceth three sundrye wayes. By repletion, by inanition, and by societie or participation with the brayne. The generall methode in curynge these three sortes is to holde strongely, & to chafe and annoynt them wyth oyle of Lilies, or elles with common oyle in defecte of it. The conuulsion springyng by inanition is cured in this maner. Fyrst foment the place wyth oyle, or elles

with

with Hydroleum made warme. Also if no other thyng be let or impediment, you shall vse a bathe in whiche is boyled the head & feete of a shepe, goate, calfe, or lambe. Also in whiche is put Malowes, Althea, Violet leaues, Beates, and Mercurye, puttynge to it the thyrde parte of oyle. Some there be whyche with great profite doe vse this lineament folowynge, annoyntyng with it the ridge bone or spine of the backe and all the ioyntes.

The liniment.

Rec. Olei violarum, iiij. vnce.
Amygdalarum dulcium,
Pinguedinis gallinæ,
Medullæ crurium vituli } ana. vj. drames
Pinguedinis vituli,
Hædi, } ana. x. dragmes.

Boyle all these in the decoction of Malowes and rootes of Althear, vnto the consumption of the sayde decoction, then straine them & make a liniment of them, & vse it as I haue afore sayd. But if the conuulsion come of fulnesse, you muste cure it by euacuation of the whole bodye. But there be two wayes to euacuate, that is to saye by lettinge bloode and by purgynge.

But we let bloode in those bodies in whiche there is abundaunce of bloode or elles where inflamation hath caused conuulsion, although there be no abundaunce of bloode. But if the fulnesse be of humors, then you must purge that which doeth offende whether it be fleame, collor or melancholie. But grosse and viscous humours are to be expelled w̄ Hiera, Picra, & Agaricke. You muste also vse sharpe Glysters, also Gargarismes, Apophegmatismes and næsing, that the grose fleame maye come forthe by the nose & mouthe. The body beyng thus purged and let bloode, annoynte the necke, armepittes & flankes with this lynement folowing.

Rec. Oleorum liliacei,
Costini,
Spicę,
} ana. ij. vnces.
Laurimi,
Castorei,
Euforbij,
} ana. halfe a dragme.

Myxe these together and vse as is before sayd. Also Rogerius and Theodoricus doe muche in this sickenesse prayse the vnguent, whose composition as in this maner.

Rec.

Rec. Olei muſcellini, j.vnce.
Petrolei, halfe an vnce,
Olei communis, } ana.iiij.vnce.
Butyri, }
Styracis calamitæ, } ana.ij.dragmes.
Rubræ, }
Maſtiches, }
Olibani, } ana.half an vnce.
Gummi hæderæ, }
Ceræ, an vnce,

Make theſe in an vnguent accordyng to arte, and with this vnguent moderatly heat, anoynt the whole necke, and all the ſpine of the backe. Laſt of all if the conuulſion commeth by conſent and ſocietie of partes, and ſpringeth of dolour, you muſt cure it by medicines called Anodyna, of which we haue made mencion in ỹ firſt Chapter of this thyrde booke, and alſo in oure Antidotarie. But if it appeare by the bytyng or ſting of anye venemous beaſt or Serpent, you ſhall applye bores to the wounde, and make a plaſter of Triacle and laye to the place, and vſe the ſame methode of curyng that is ſet out in the laſt Chapter of the ſeconde booke. And ỹ conuulſion inſueth becauſe ſharpe and corrodyng humours doe byte & fret the mouth of the

stomacke: then with all diligence you muste prouoke him to vomite, & after strengthen the stomacke bothe outwardlye & inwardlye wyth apte & conuenient medicines, folowynge the counsell of some expert Phisition.

Furthermore in all conuulsions this is a generall rule, you muste strengthen & corroborate the brayne. Therefore shauynge the heare, you shall foment the head, necke, armepittes, flankes, spine of the backe, and ioyntes wyth oyle of Lilies. If these doe not take place, then accordynge to Galenes doctrine, you shall cutte the nerue a sundre. For (sayeth he) it is better to suffer hurte & losse of one parte, then to looke for a certayne and ineuitable death.

Of the the Palsey comminge of a wounde. Chap. v.

PAralysis, whiche we in Englishe call the Palsey is the relaxation & molifynge of the nerues, with losse of feelynge & mouynge of one syde or parte of the bodye. This accident sometyme foloweth vehemente conuulsions, & chiefelye after greate woundes in the head, and in the spine of the backe. It doeth showe forthe hys myghte. The cure of the Palsey is thys wyse. Fyrste you muste

evacuate

euacuate the bodye by purgynge of the humours, & euacuating the bodye. Yea by letting of blode also if necessitie requireth. Further to diuerte the flure whiche goeth to the resolued parte, vsynge also a conuenient diet, in all whiche it is necessarye to consulte with the learned Phisition. These thynges beynge done, then let the Surgian wyth all diligence applye locall medicines, amonge whyche many doe vse emplasters, cataplasmes, vnguents, fomentations, boringe, & dyuers other remedyes. But Guido (out of Welue) hath chosen a moste precious liquour, and agaynst this accident of moste wonderfull effecte, wyth which he annoynteth the spine of the backe, the necke, and the parte resolued, and surelye there is no remedye comparable to it. Yea, and Guido leauynge all other medycines holde hym selfe well satisfied and pleased onelye wyth thys so precious a treasure. But I wyll omitte the prayse of so noble a lyquour seynge my witte is to simple, and my penne to rude to do that herein is required, and therefore I let that passe, and wyll showe you the composition.

Rec. Myrrhæ electæ,
Aloes hepaticæ,
Spicæ nardi,
Sangui. draconis,
Thuris,
Mumiæ,
Opopanacis,
Bdellij,
} ana.ij.dragmes,

Carpobalſami,
Ammoniaci,
Sarcocollæ,
Croci,
Maſtiches,
Gummi arabici,
Styracis liquidæ,
} ana.ij.dragmes.

Ladani electi,
Succi caſtorei,
} ana.ij.dragmes.ſe.
Muſci, halfe a dragme,
Terebinthinæ optimæ ad pondus omnium.

Beate all thoſe to pouder, that are to bee brought to pouder, and mire all theſe wyth the Turpentyne, and put them in a veſſell of diſtillation and with a ſofte and gentle fyre

fyre drawe oute this moste precious liquour, and if to this composition you dyd adde suche herbes as are vsed in curynge the Palsey, you shoulde make youre medicine so muche the more precious.

Of Syncope or swouding through cause of the wounde. Chap. vi.

GAlene in the twelfeth booke of his Therapeutike methode sayeth, that Syncope is a sodayne decaye of strengthe, commynge through inoderate euacuation, vehement dolour, continuall watchynge, intemperateneſſe of the principall partes, or vehement pertubations of the mynde. But Syncope whiche foloweth in woundes springeth for the more parte of greate effusion of bloode or elles of vehement dolour. And you maye easelye coniecture the commynge of it, by the weakeneſſe, pulse, paleneſſe of face, colde sweates aboute hys necke and temples. And this accident is not lyghtlye to be regarded because it so sondenlye commmeth, and is as it were the image of death. Therfore comfort the wounded man by all meanes possible. Suffer no great company to be where he is, and before

this accident come, giue him a peale of fyne White bread sopped in the best Wine you can get, into which Wine you shall put Rose water Borage water, & a cake of manus christi perlati, and after you haue tosted of the bread, geue hym of the Wine to drinke, & comforte him with sweete smelles, & chafe his temples with Rose water, & if he begynne to sownde cast colde water on hys face, & chafe & rubbe his temples with your handes, pull him by the nose, exclame & call him loude by his name, rubbe his handes, & pull him by the eares, & doe what you can to reuiue & quicken his spirites as is the accustome of learned Phisitions.

Of alienation of the mynde comming by the reason of the wound. Chap. vii.

DElyrium or alienatiõ of the mynde is a motion depraued of the principall facultie: takynge hys begynnynge of euill fumes ascending to the head, & also of intemperatnes of the brayne: it doeth diuers tymes fortune the braine to suffer of it selfe, & sometyme by consent with other partes. But I wyll speake onlye of that alienation of mynde, whiche commeth by consent of parts. Therfore if that alie-

nation

nation of mynde apprehendeth the pacient after he be wounded, you muſt call ſome ſkilfull Phiſition, which with potion, frictions, binding of the hands & feete, ſharpe gliſters here to apte to attracte the fumes & vapours from the head, and when the vigour of this accident infecteth, it is good to powre on his head the decoction of Popie. For Galene ſayeth we muſte labour to aſtoyne ſomewhat the brayne, & prouoke ſlepe by all meanes poſſible. Auicen ſayeth that manye haue bene deliuered of this accident by vſinge certaine dayes the decoction of Bryonie rootes. And thus I haue ſet out the moſt notable & perylous accidentes, whiche happen in woundes, with their intentions curatiue, and proper medicines vſed in the ſame. Wherefore I thinke it good here to finiſhe this thyrde Booke.

FINIS.

The fourth booke of

the Enchiridion comprehending the maner of curinge fractures, and luxations: by Thoma Gale Maister in Chirurgerie.

Seyng I haue hetherto in theyr proper bookes set oute the cure of all those woundes, whiche maye happen in the softer partes of mannes bodye, as in the flesshe, muscles, vaynes, arteries, nerues, tendons, ligamentes, and suche lyke: and haue further shewed sufficiently the methode to put awaye suche accidentes as happen to greate woundes (for to greate woundes commeth greate accidentes) tyme nowe taketh me by the sleeue, and sayeth directe thy penne, & addresse thee to wryte of those woundes, whyche happen in the harde partes of mannes membres, that is to saye, in the bones. Suche bee those woundes whiche are called fractures or breakynge of bones, in Greeke Catagmata, and also of luxations and dislocations of the same, whiche because bothe are affections commynge to the bones, I wyll wryte of bothe in this fourth and laste booke of thys Enchiridion, begynnynge fyrste at the fracture

fracture of bones, whyche done, I wyll also intreate of dislocations.

Of the trewe and perfite cure of bones fractured. Chap. i.

BEfore I do take in hande to intreate of the cure of bones fractured, I wyll set out what a fracture is, that thereby it maye bee the better vnderstande, that hereafter shall bee wrytten. Therefore a fracture is a soluition of continuitie made in the bone. Of bones fractured: There bee there differences. One when the bone is broken in lengthe, another when the bone is fractured ouerthwarte, the thyrde when as the fracture is oblique or crooked. Albucasis and other latter wryters make the differences of fractures, not accordynge to the bone fractured, but after the place affected, as if the nose be broken, or the brayne panne, or Jawes, ribbes, backebone, armes, thyghes, legges, fyngers, or other parte: whych in deede be not differences of fractures, but as I sayde, of the place affected, accordynge to the nature of which the bones broken haue spydier or longer tyme or they can bee vnited agayne together. For the Cranium is ioyned together in fiue and thyrtye dayes, the arme or legge in the space

ſpace of fourtye dayes, the foſſilles abonte thyrtye dayes, the noſe taketh perfect conſolidation in eyghtene dayes, the ribbes in one and twentye dayes, the Jawes, the bones in the hands, & feete, aboute twentie dayes. And ſo in lyke ſorte is to bee ſpoken of the tyme of curyng other bones fractured accordyng to theyr natures, alſo the tyme maye bee longer or ſhorter, accordyng to the age of the Pacient, tyme of the yere, dyet & order of lyfe. All whiche muſt bee diligentlye conſidered of hym that wyll appoynte anye tyme determinatelye in curyng of bones. But nowe to the trew & perfecte cure of bones fractured. And for becauſe the fracture is a ſolution of continuitie, there is required the bnition againe of the ſame. But to the bnition of the fracture are required foure ſcopes or intentions. The firſt is that the parts of the broken bones be ioyned & put together in their proper place. The ſeconde intention is that they beinge ſo reduced to their naturall forme maye ſo be conſerued, & kepte wythoute motion. The thyrd ſcope is that the parts of the broken bone may be conglutinated & ioyned together by engendring of callus. The fourthe and laſt intention is to correct thoſe accidents, which do come after the fractures of bones. Of theſe foure ſcopes & intentions according to my poore knowledge I wyll ſeuerally intreate.

Nowe

How the partes of the bone fractured are to be vnited together and put in their proper place. Chap. ii.

FIrste of all it behoueth to note diligentlye whether bone broken be out of the naturall place or not, which you shall knowe by these signes sayeth Cornelius Celsus. For if the member where the bone is fractured doeth extende it selfe & standeth vpwarde, and is with pricking, and when it is touched it sheweth an inequalitie: These bee sure tokens and sygnes that the bone broken is out of his natural place, wherefore after the counsell of Guido de Cauliaco, the member is decently to bee extended, and that parte of the bone that is depressed is to be lyfted vp, & that other parte whiche is standynge vpwarde muste be put downe, & thys with so muche lentie & smale payne as is possible, vntill the endes of the bone fractured doe meete & bee vnited & broughte to theyr naturall forme & place. Neyther is this possible that the bones fractured & brought out of theyr naturall place can bee reduced & rightly vnited & placed but with some force more or lesse. So that if the member be smale & of no greate strengthe, as the finger or other lyke member, one man may wel extend & stretch it out applieng his one hande

hande on the one parte, & the other hand on the other parte of the broken bone, vntyll bothe endes of the bone fractured doe meete and ioyne together. But if the member bee greate, hauynge stronge nerues & tendons, then one man is not sufficient, but there is required two: specially where the fracture chaunceth in the thighes, legges & armes, of stronge & robuste persons. But you muste diligentlye take heede that the member bee neuer to behementlye or inoderately extended & drawen out, for that doeth brynge (specially in harde & drye bodyes) behement dolour, feuers, conuulsions, & sometymes the Palsey: Yea it happeth often by this meanes, that the fibres & threedes in the heades of the Muscles be broken. Wherefore there is muche wysedome & discretion herein to be vsed. But nowe to that from whence we are digressed. Fyrste the sicke man is to be set in a chayre, or elles if it bee mooze conuenient, layed on hys backe on the bedde. Then two men for thys vse prepared, you shall commaunde the one to holde with his handes the parte of the member aboue the fracture: and to the other, to laye hys hande on the neyther and lower parte of the member, vnder the fractured bone. And thys beynge done, willynge them so longe to stretche and put oute the member vntyll bothe endes of the bone doe meete, then

thou

thou wyth thy hands shalt hansomly forme it & put it in together, laboring to bring it to hys natural figure & forme. But if the member be such as that with their handes only, they are not able to extend the same then you must haue bands of which the one shalbe fastened aboue the broken bone the other vnder: and so the one man placed at the sicke pacientes head and the other at his fete. They shal strech and extend oute the member as is suffycient with the bands in their hands. And thys is a sufficyent token ỳ the bone broken is reposed in hys righte place, and that both endes be vnited together; when that the pacient feleth a releasing of his payne and Dolour. The bones being thus ioyned together, lest that they should go a sunder again, it is necessarie to rolle and bynde it in suche wyse and maner as shal here after be set out. And if it fortuneth that the broken bones be not vnited but remain out of their place a few dayes there accostomably followeth great inflammation and no smale perill and daunger to the nerues & tendons. And thus breefly and sufficiently I haue set out the first intention. There is also an instrument vsed to extend out the member wyth, of whych Hippocrates and Paulus maketh mention: which you may prepare and vse, but I omyt it and vse ths waye aboue sayde as more apte and wythouts perill.

Howe the broken Bones united and ioyned together aptly: may be kept and remaine in the same figure, so that they maye come to their former estate. Chap. iii.

When as the broken bone is reduced to hys right place & is formed according to his naturall figure: it is very expedient to kepe it in the same, which cannot be in any wise if that the mẽber be moued. Wherfore it is necessarye by all meanes possible to kepe the members wout motion. Which thing although the patient perhaps in the day time wil carefully regard: yet at night whẽ depe slepe dothe occupy his sences he shal of force neglect. Therfore ỹ as well day as night: sleping as waking, the mẽber may be conserued wout motion, it shalbe necessarye to vse apt and conuenient ligature & rolling. But before you do go about to rol the mẽbre, it is very good to mixe the white of an egge & oile of roses together & wet therin a soft linen clothe of such bignes as may compasse not only the place where the bone is fractured, but also some what of the sound partes. Then this being applied to the affected part, you shal nert bynd and roll the membre: in which you must diligently regard that you compresse not the member by to hard rolling: & so the nouishment cannot come to the part, and also dolour and pain may cause flux of humors & inflãmation: neither must you bynde

ñ to slacke & lose, for then the broken bones will separate again and go in sunder. Therefore you shal vse a meane herein that you bynde not the member to straite nor to lose, but followe herein both your owne discresion and also the feling of the patient. And as touching your rollers you must haue two made of soft cloth, whose bredth & latitude must be such as in rolling there be no loseues, widnes, & plaits: the lenth of these can not certenly be showed, but must be according to the bignes of the fracture & thicknes of the member. The beginning of the first roller must be vpon the fracture, & so rolled about iij. or iiij. times, & then rolling vpward vntil you com to the soūd parts which must also somewhat be rolled. So by this meanes the bones vnited shal more firmly remayne together and the flure of humours staied ẏ they cānot come to ẏ affected part. The beginning of the second rol must also be vpō the fractured place, going iij. or iiij. times also about the same, & so continuing downward vntyl you haue compassed the soūd parts: which done, you must w̄ the same roller ascend vpward again vntil you come somwhat aboue ẏ first roler. Therfore this roller must be half as long again as ẏ first roller is. The vtilitie of this second rolling is that it putteth that is superfluous vnto the lower parts, & suffereth not any flur of humours to infecte and noye the parte affected.

These rollers would be wet in water and wine mixed together before you do vse them. And yf there be anye vehement paine or inflammation then the member would be wrapped about with fine woll well carded, or els w̄ stuffes wet in Oxicratum. And the ligature or rolling would not be hard but such as mai defend and kepe the vnited bones together. Furthermore because these bindings and rollings are notable both to defend the member from accidentes: and also to kepe the member together & confirme the same: Hippocrates vsed certaine plasters or cerotes, or such like which must be put vpon the two rolers and is as it were the thyrde ligature or rolle. Among which is vsed ceratum humidum, made of ware melted in osle of Roses. But yf that there be besides the bone fractured, the solution also of continutie in the flesshe then you shal not in any wise vse eyther cerote or oyle because it wyl make the vlcer filthie and stinking. But in their place to vse plumaciols that be long, dipt in red and stipticke wine. And one thing which kepeth the member from dolour and paine is after that the same be rolled and aptly put together to place it in his naturall forme so neere as you can. And it is moste nye vnto the naturall forme and figure, when it is so layde as is with leste paine and greefe. But because this forme and figure should be surely conserued and kepte

and

and,accidentes put away,the later Chirurgians haue vsed to put aboute the ligatures certayne splentes at the first dressing: binding them so about the member as the patiente,or accidentes may suffer. Galene and the old writers vsed not splentes before the vii.or ix.daye:notwithstanding it is conuenient to vse the splentes at the beginning,so that they through straite bindyng compresse not the member,and make Dolour & inflammation. The splentes muste be equall, smothe, euen,not croked or rugged, and in the middes thicker then in the other parts that they may be the more able to strenthen the member in that place wheras the bone is fractured. The way and order in applynge splentes is in thys wise. There must be clothes iii.or iiij. fold dypte in Rose water and layd vpon the rollers according as the mẽber requireth. Then the splentes inuolued,and wond about with wolle or cotten must be placed round about the mẽber a finger byeth a sonder,and bynd them moderatly & iently that you compresse not the member. And in any case take hede that none of the splentes touch any ioynt,if anie be neere the fractured bone:for that wil make vlceration and inflammation in the same ioynt. Therfore if the fracture be nere to any iointe you muste in that parte make your splents shorter smaller and lighter. And yf no dolour,no inflãmation,no itching,no vlceratiõ,

commeth

commeth to the fractured part, then you may let the splents remain on vnto the xy. day or. xv. day yea or vnto the .xx. day. But if any of these happeneth then it shalbe conuenient to vnrolle the membre the thyrd day and foment it wyth luke warm water wherby both the sharp & according matter is washed the paine ceased & the itchinge put away. And thus much touching the second intention.

Howe the partes of the bones broken may be conglutinate and ioyned together. Chap. iiii.

SEing that the fractured bones cannot be conglutinated & made to grow firmely together nether by apt & conuenient rolling nor splenting nor by puttinge of them in there naturall forme and figure except there be made somwhat to grow out of the nourishment of the bone which may cause them to close & grow together they call this callus, which like a glewe doth glewe them together: therfore the thyrd intention is to make this callus to grow by al meanes possible. But thys must be ingendred of grose & earthy parts such is the nourishment of the bones. Thys callus after the mynde of dyuers doe begynne to grow about the tenth or fortenth daye. And that it doth beginne to grow you shall perceyue and iudge by these signes and tokens. The Dolour and payne is aswaged; the inflamma-

tion

tion ceaseth: the tumour banisheth awaye: the naturall colour of the member commeth againe to the same. And for that the cheke and principal way to make callus growe and ingender standeth in apte and conuenient diet, I wyll breefely vtter the same vnto you. Although at the beginning of the fracture, Hippocrates counselleth that the pacient doe vse a thinne and small diet: and that he doe abstayne from flesshe & wine for the space of .v. daies, yet nowe whē as our scope is to ingender callus you must licence him to vse a more large diet & meates that make good iuice, & that grose & somwhat viscous for of such nutriment the bones are norished & callus groweth. Therfor thei comēd much fine & pure wheat boiled in cleane fountain water while the wheat do brust, & the water being so concocted is somwhat thick. They cal thys wō vs in england frumentie potage. And I suppose it to be that which diuers cal Alica. Also the heads & fete of beasts are very good in this case, chefly e of a kid or els a wether. For these do much norish & be of grose & viscous iuyce. Also giue him to drinke good redde wyne when as he goeth to meate, but let it be moderatly taken. The bignes of callus muste not be eyther bygger or lesser then is requisite, for beyng bygger it bryngeth payne to the muscules: and yf it be lesser then is it vnable to defende and strengthen the fractured bones.

How callus shalbe kept that it be nether to byg or litle, you shal see set out in the chap. folowing.

How the accidentes which happen to fractured bones are to be remoued and put away. Chap. v.

THis fourth scope and intention although it be the last in order, yet is it not the least in vertue and vse. For it doth show how to remouc all accidentes and thinges against nature which doth let and hinder the curing of the fractured member. Suche accidentes for the most part are dolour or paine, inflammation, itching a wound, immoderate drines or moyster, letting & hindring the generatiõ of callus, gangriena, hardnes, and the quantitie of callus to much or litle. These as I sayd be the chefe enemies to hinder natures worke, & I will set out the waye to expel and put away euery of them beginning first with the accidentes called dolour or payne, & with inflammation, named of the Grecians phlegmone. Therfore if these accidents do infest and besege the fractured member, after it be bound rolled & dressed; you shall with spede lose the ligature and take away the roller, & then the member being bare and naked, you shal foment it with oile of roses, vineger and wyth other like medicines before remembred in the

theyr boke where I wryt perticulerly of the cure of these accidentes. Nether shall you vse agayne eyther ligature or splentes before the dolour be aswaged and the inflammation ceased, except it be onely to strengthen the member and keepe it together. But these accidentes beynge expelled then vse your splēts & rolling as you did before. But if this itching or as they call it in Latyne pruritus with sanies or matter happeneth, then Hippocrates and Galene vse to foment the place with water temperatly hote. And the later Chirurgians in the like case doe applye salt water, vnguentum album, vel vnguentum populeon. And bind the member as is aforesaid. Further more if to the fractured mēber there happeneth a wound ether at the breaking of the bone, or els made of the Chirurgian, that he maye take oute the shiuers of the bone molesting the muscules, or how so euer it doth happen you must if there be any flur of bloud labour to stanch and stay the same with apt and conuenient remedies set out in this boke. If inflammation foloweth to the wound it must be repelled. If the flesshe be broised and contused, then scarifie the parts for feare that gangrena doth folow. And if it so happneth that gangrena doth folow, or any deuouring putrefaction, then you must cure it as is set oute in our method of curing tumours against nature. And if none of these happeneth then you shall

vse the like medicines to the cure of the wounde that you do to grene & freshe wounds. Furthermore if the bones be immoderatly dry whereby the growing of callus is hindred, it shalbe conuenient the thyrd or fourth day to foment the place w̄ water: and when as the flesshe do rise in a tumour then cease further to vse fomentation except you do intend to euaporate & digest the multitude of matter, then cease not vntil the tumor goeth away. And if moistnes foloweth in ỹ fractured membre & leteth the ingendring of callus, you shal put it away with conuenient ligature and roling & things that doth moderatly exicat. Furthermore you shal giue diligence when callus doth grow that it may be staied leste that it war to great: or increased if you think it wil not be of conuenient bignes. And both these pointes do consist in diet, in the quantitie and qualitie of fomentation, and in conuenient medicynes. Of medicines those are to be vsed whythe doe moderatly heate and is made plaster wise. Among which the pyched emplaster is not the lest of price, for both doth augment the callus & draweth norishment to the broken mēber. This is to be vsed when as we thinke to make the callus bigger: but if callus be to big then you must make it lesse w̄ medicines which doe digest & be astringent. Also w̄ cōprehending ligature & a plate

of

of lead applied to the callus. Also frications & fomentations made wᵗ oile salt and salt peter, or wᵗ salt water made hot. But if the callus be growē to much & that into a hard & stony substance, then you must cut the flesh and wᵗ knifes & other conuenient instrumēts, the callus it to be minished. Also it fortuneth ẏ the callus doth not grow at the accostomed time, which commeth of sondry causes, ẏ is to say ether of immoderate fomentations, or vntimely motion, or thorow the multitude of rolling, or for ẏ the body is not sufficiently norished, which apereth whē as the mēbre affected is lener & slenderer then it was naturally. Therfore wᵗ al diligence you must loke to thys thing, aplying hote atractiue medicines to ẏ part & cause his diet to be more larger & causing the patient to imbrace mirth, & banish heuines and such passions of the mind as may bring the body into a melancolike disposition. And this shalbe ẏ signe and token ẏ the bones fractured be conglutinated wᵗ callus, when as the rollers & thynges wrapt about the mēbre do apere blody no wōd beinge in the mēbre. Which thing I suppose do spring when as the substaunce of callus cometh togither & going into the holow parts of ẏ bones some droppes of blod are thurst out. And thus much shall suffice touching, the methode & way to cure the bones fractured now will I speake in like sort of luxations, and dislocations.

What

What a luxation or dislocation is, and of their differences. Chap. vi.

ORder euer requireth that what so euer any do take in hande, that firste or he proceedeth further, he do exactly know the nature of the same, which he cannot do otherwise then by difinition & description. Therfore a luration is the goinge out of a ioynt from his naturall place, whereby the voluntarie motion of the member is hyndred: the Grecians do name this affection exarthrema. There are two onely differences of lurations which ars taken according to the bignes of the luration. For if the ioynt be quit oute of his socket and place, then it is properly called a luration: but if it be but onely a litle remoued, it is then not named a luration but a wrynche in latyn Subluxatio, and pararthrema in Greeke. It fortuneth that a ioynt may be fowre maner of wayes dislocated or wrinched: that is to saye, forward, backward, higher, and lower. Excepte certayn which cannot be put out of their place, or els but one or two of these wayes. But for as much as there ryseth no great vtilitie by numbryng of suche ioyntes I wyll leaue of to make mention and wyll intreate of the reducynge of ioyntes dislocated into their proper places. And to thys there are fowre intentions to be obserued. The firste to bring ỹ ioynt into hys natyue

and

and prestinate place. The second is the conserua tion and keping the ioynt so put in, that it doth not slyppe out agayne. The thyrd is to defend the member from accidentes as dolour inflammation flur of humours and such like. The last scope is to put away those accidentes yf any dos folow: these in their proper places I wyl set out beginnyng wyth the fyrst intention.

How the lurated ioynte is to be reduced to hys naturall seate and place. Chap. vii.

SEyng that the ioynt dislocated and out of his naturall place requireth the reducing agai of the same into his wonted seat: you shall extend the member into diuers parts decently as is required, vntil such time as the space betwixt both bones is empty and voyde. Then the bone whych is out of hys place is to be put into the cõtrary parte from that where as he is & so placed in hys natyne seat, that the emptines of the socket maye agayne be filled with the bone. But this extension and streaching oute of the member must be done tenderly and wyth so litle pain as is possible. Neither is there one way of extending and streaching out of the lurated mẽber, for somtime it must be done with the hands only, some time with bandes, and some time wt instruments apt and conuenient for the same, as

appea-

appeareth in Hippocrates booke De luxatis & fractis.

How the member lurated & brought in the naturall place: may be conserued and kept in the saine. Chap. viii.

When as the member lurated is brought in to his natural place you must wyth al diligence possible labour to confirme the part and kepe the member from slypping out again. Wherfore you shal anoint the place wō oile of roses and then a fine & olde linen cloth wet also in oile of roses shalbe applied to the mēber which done you shall vse stukes & clothes wet in the white of egges & lay them also on the ioynt. Last you shal wet your rollers in water and vineger mired together and rol the member therwō. And if necessitie doth require you maye furthermore make splents of lether or pasted paper and apply thē about the ioynt. But giue diligence lest the part be to strait bound & rolled for feare of inflāmation. These thinges thus finished laye the member in his natural figure & shape. Neyther shal you (except some great and ill accident happen) lose the roller & open the member, before the viij. or tenth day at the lest. Auicenna willeth that in this case you shall not vse hote clothes or medicines for feare of flure and inflammation but rather some refrigeratius cerote.

How

How to defende the member from accidents and to put them away if they happen. Chap. ix.

The member lurated beyng reduced to hys natural place and confirmed in the same, & also hauing his perfit shape & figure: there remaineth to defend the same frō ill accidentes, or if such happen or thou be called to the cure to put them away. In the defending the member you shal labour to kepe the member from flur of humours for if there be a flur, then shal there follow both Dolour and inflammation. Therfore strengthen the member with apt & conuenient, medicines set out in diuers parts of the worke. Also let him vse thin and smal diet, purgien, and letting blood: for these do meruailously auert the flur from the affected member. But if it chance that there is already accidentes or thou come to the patient, as dolour or inflammation, then thou shalt not put the member lurated into the place before thou haste cured the accidentes. Therefore these thinges sufficientlye declared as much as the nature of an Enchiridion requireth touchinge the methodicall curinge of woundes bothe in similer and instrumentall members, also of fractures & dislocations I will speake brefely & taken of members and then leace my penne for this present.

The

The methode and waye howe to take of a member when it is mortified and dede: and of a newe powder by me deuised to staye the flux of bloude. Chap. x.

IT happeneth often tymes that through greate accidentes which falleth vnto woundes thorow gonneshote, that the hole member commeth to mortification. So that of necessitie it must be taken away. The same accidentes also I haue knowen to chaunce vnto fractured members: and many other wayes it hath happened the members to come to gangrena and sphacelus by diseases of which you shall finde in other of my workes a more ample discours whers as I intreate properlye of those greefes. But for that my whole intention at thys present, is onely to set out the way how to take of corrupt and mortifyed members, I will leaue them, & go to my purpose. If the legge chaûce to come to such corruption, beneth the knee, that of necessitie you are constrayned to take it of from the other parte: It is beste to cut it of, one good hand bred beneath the knée: So shall the partye haue a restinge place for a stylte to go vpon: And althoughe it nedeth no more but to take of hys foote onely, yet for as much as the

rest

reſt of his legge ſhoulde be but a trouble vnto him. It is better to take it of vnder the knæ as I haue ſaid before, for the paine will be al one, and the daunger is leſſe in that place. And further you muſte take diligent heede that you make your inſition aboue the corrupted partes, for els the fleſh or bones being corrupted aboue the place where as you make your inciſion might cauſe you to haue a new worke, to the great greſe and paine of the pacient, as I haue ſene often times. And therfore if the corruption haue taken the ioynt of the knee ſo that it can not be cured but that of force the member muſt be amputated and cut of, then take it of three fingers aboue the knee. For in anye wyſe take it not of in the iuncter of the knæ, for that is very dangerous and contrary to the opinions of all the auncient writers: that order you obſerue in taking of the leg, ỳ ſame ſhal you folow in taking of the arme. But before you beginne this worke, you oughte well to conſider wyth your ſelfe, and alſo to call other expert men to you, to ſæ the pacient, conferring wyth them, whether there be any way to kepe on the member and to cure it by any waye poſſible, for it is great ſlaunder to the arte of Chirurgerie, and alſo matter in conſcience, to take awaye anye member, whych other wayes mighte by arte be cured, although it be both paynefull and longe

or it be done. But if there be no other way but that you are constrained to take away the member, or els the partie cannot be cured, and that in processe of time death must folow, then it is better to cut of a leg or arme, then al the whole bodye should perishe. Now when you intend to take of a leg or an arme, first prepare the bodye, that is to say, yf it be ful of ill humours to purge it with conuenient medicines, and also to giue the pacient such diet before, as is conuenient. That is if the pacient be fœble and weake and hath bene longe sicke, then giue him meates of good norishment to make him stronge, that he may be the more able to suffer the payn when as he shalbe dysmembred, leste he faynte and fall into swonnynge, and thus doyng fyue or syxe dayes you may procede to the taking of, of the member, whyche is done in thys maner, firste you shall make a defensitiue as hereafter folowth.

Rec. Boli armeni viij. vnces.
Farinę hordei iiij. vnces.
Sanguinis draconis, Terræ Sigillatæ } ana .ij. vnces.
Olibani j. vnce and a halfe.
Aceti iiij. vnces.
Albuminis ouorum. q. s.

Make all these in pouder, that are to be made

in ponder, and incorporate them with the vene-
gre, and whites of egges. Then spreade this vp-
on a cloth iiij. fingers brood, that it maye go. vj.
or .iij. tymes about the member. This defen-
sitiue must be layde on so nere about where as
you will take of the member as is possible, so
that when you make your insicion, you must
cut so ney this defensiue as within the breth of
one strawe, or half an inch at the furdest. Thys
defensiue must be very hard rolled aboute the
member the night before you intend to take it
of, and the harder it is rolled the better it is, for
the hard rolling stayeth the bloud and maketh
that in taking of the member there commeth no
great flux. And furthermore by reason of the
hard rolling it letteth both the animall & vitall
spirites to passe to the affected part, by meanes
whereof it is so astonished, that the pacient fee-
leth not half so much paine, as he shuld if thys
were not done. Then when as you come to take
of the member, you shal prepare all thynges
readye that serueth for hys dressynge, and be-
fore you make anye Insicion putte the par-
tye in verye good comforte, declarynge vn-
to hym that the feare is muche more then
the payne. And yf you be disposed to take of
anye member wythoute actuall Cauterisa-
tion: You maye aptlye doe it, by potenti-
all Cauterization:

Among which I haue deuised one that by continuall proffe I haue founde profitable and therfore I wyll show the composition as foloweth.

Rec. Aluminis ſuccarini, Thuris, Arſenici } ana. ij. vnces.
Calcis viui vj. vnces.

Make them all in fine pouder, and put vnto them one pynte of stronge veneiger, and boyle them on the fyre, continually sturryng it, tyll the venegre be consumed, then let it be set in an ouen or in the sunne tyll it be perfytely dry, that you may make it in pouder, and when you wil vse it, take of this pouder, ij. Vnces, of Bole armoniack half an vnce, of Puluis alcamisticus one vnce. Put al these together and make them in very fine pouder, and so you haue the pouder sublimed and prepared to restraine blonde when you wyll take of a member wythout hote yrons. And this medicyne I haue founde to be most sure of al other not only in taking of, of members: But in manye other greſes cured by the art of Surgerie, and I haue named it in al my Bookes Puluerem ſecretum. And before you make your Insicion take .iij. vnces of this pouder and incorporate it wyth whytes of egges,

then

then make a ſtufe of towe as large as the ende of the member that you wyll take of. And dyppe it in Uenegre and preſſe it out agayne. Then ſpreade your medicine, made wyth the pouder and the whyte of Egges, open the ſame towe, after ſtrowe a lytle of thys dryе pouder vpon that, ſo makinge many lytle bolſters of towe, to lay vpon this great ſtufe as nede doth requyre, for the better reſtraynyng the flure of bloude. Now when you haue all thynges prepared, wyth bolſters and rollers, and other things thereto pertayning, you ſhall go to the pacient and comfort him as I haue ſayd before couering his eyes and ſetting him in ſome place conuenient, hauing certayne perſons mete for the ſame purpoſe, to holde hys bodye and hys armes that he let not your operation, and other apte perſonnes to holde the member that you wil take away. You ſhall then quickly and redy with a ſharpe inſition knife, cut the fleſhe round about to the bone, wythin halfe an ynch of the defenſiue, that was before layd on. And one thynge you muſt take hede of: there lyeth an nerue betwyxte the two bones of the legge beneth the knee, which you muſt cutte a ſunder wyth your inſicion kinfe, leſt that in ſawing of the bones, (thys beyng not cut a ſonder with you Inſicion knyfe as I ſayde before,) it might be ſo plucked and wrne with the ſaw, prouoking

great accidents as sincope, spasmus, dolour, yea and deth also, which I my self haue often times sene. Then when you haue made your inficion perfite, with a fine sawe you shall cut a sunder the bones spedely, and with as litle shaking of the member as you maye, then lay vpon the endes of the bones a lytle lint dypped in oile of Roses and so wrong out again, the oyle beyng first made warme. And next lay on your stufe prepared as I haue said before w̄ your pouder & the whit of egges, laying vpō that other stufes & bolsters to restrain blod as you se cause: then must you roll it accordyng to art, to kepe on the stufe very close that it may the better restrayne bloud. Prouided alwayes that ye laye a defensiue aboue the knæ, to defend that no humors fall done to the sore place, which defensiue you shall euery day kepe wette, with Vineger and water. So that you shall not neede often to remoue it. In lyke maner you muste wette your fyrste defensiue that was layde vnder the knee and so keepe it wette for the space of syre or seuen dayes before you remoue it. And for as much as we cannot come a to finger, or a toe to take it of with a sawe, as we may do a legge or an arme, therefore I haue deuised pinsons to nyppe the bone a sunder after that you haue cut the flesshe round about to the bone, wyth your inficion knyfe, vsynge your pouder wyth the

white

whyte of an egge for the restraining of bloude, and other defensyues to defende humours as I haue before aleged. Now for the reste of the cure, fyrst we must procede with medicines to cause the asker to fall of, and I haue found none better then thys.

Rec. Terebinthinę ij. vnces.
Butnri recentis iiij. vnces.
Cerę j. vnce and a halfe.
Vnguenti populeon. viij. vnces.

Make hereof an vnguent according to arte.

Thys vnguent doth not onelye louse the asker, but it ceaseth the great payne, and kepeth the member from euyll accidentes which is requisyte in thys maner of cure. I haue not knowen twoo die, that hath had there legges or armes taken of with this pouder aforesayd, and vsyng the methode or waye that I haue here before declared. And for the reste of the cure you maye vse medicynes incarnatyue and desiccatyue as you do vse in other woundes, and as is required in the arte of Chirurgerye.

Nowe my brethren for as muche as that the taking of, of members, is one of the principall thinges that you haue desired of me, and to doe it wyth oute actual caterisenge yrons which sore feared the people with the erroz of cauterization oz burning, as we call it, that many of them rather would die wyth the member on, then to abyd the tirreble fyre by meanes whereof manye people perysshed.

And other some, that put themselues to surgerie and had their legges oz armes taken of with whote yrons, many of them perished as you your selues knowyth right wel. And specially you that be of the Hospitalles of London: wherefore I haue deuised and compilled (by the mercyfull helpe of god) thys maner and waye to cure those miserable afflicted people, wythout anye whote yrons oz great perill of death, as you your selues haue had experience nowe of late tyme, by the dismembrynge and taken of, of manye members, to the great releefe and comforte of the poore people, and to the greate honour of the noble art of Chirurgerie. And I truste also, beynge thus mayntained, it shalbe highly to the glorye of God, to the commendacions of this noble Citie, where as these Charitably dedes are done, vnto the poore afflicted members of Jesus Christ, in the Hospitalles of London where as daylye these workes of

mer-y

mercye are done:

Now brethren I haue opened vnto you this noble Pouder whych I haue inuented to your honour and profite, but chefely for the commoditye of the poore: Requiring you, for as much as it hath bene your owne defyre, to haue the making of it, to take it in good part and gyue God the chefe maker thereof thankes therfore, and vfe it well. For I haue hard faye of a late tyme, that there is fome, that fayth they haue the fame Pouder, and maketh a mocke and a gaude at it, goyng about to deface me the authour thereof for my good wyll and paynefull diligence. But I warne thee (what fo euer thou art that fo fayeth) to holde thy tounge wyth fhame, for neyther thou nor I had it, but nowe of a late time: Inuented by me and one Maifter Peirponte and fyrfte put in vfe and practife by the Surgians in Saint Thomas Hofpitall in fouthwarke. And fence that time put in vfe of many moe, both yonge and olde, not onely in takyng of members, but in reftayning of bloud both in vaynes and arteries, whiche coulde not be done wyth whote yrons, and manye other thynges hathe beene doone wyth thys pouder, whych is more to be merueled at, then to be beleued. And I for my part haue redde no fmal number of authours and that of the beffe, and yet I neuer coulde finde thys pouder in anye of

them all. And yf anye other man be able to showe it me in anye other authour, then I wyll gyue him place, or els holde thy tounge as I haue sayde before, for yf thou or anye of vs all had, had thys pouder, we had showed our selues euil members in a common wealth that would suffer so many poore people to perishe in the Hospitals and in many other places for lacke of helpe. And thus brethren to sertifie your request, I haue finished thys Chapter, and ended my Booke called the Enchiridion, or a shorte & briefe maner of curynge, as we call it, of woundes, fractures, and dislocations. &c. But for as much as the medicines therin conteyned are put in the latin toung, peraduenture you wyl meruayll thereat. Seing that the rest is in the English tonge. But to you my brethren that exerciseth the noble art of Chirurgerye, I aunswere, I trust I haue done it both for your commodity & also for your profit. There are two speciall causes why they are put in the latin tonge, the fyrst cause is for that we cannot aptly giue all those simples Englyshe names, and therefore for as muche as herbes and other symples are called by dyuers names, accordynge to the vse of the countrye in oure Englyshe tounge, that they growe in: therefore yf I shoulde haue putte them in anye of these

Englyshes

Englyshyes afore sayde, an other parte of our countrye should not haue vnderstande it. And furthermore yf I shoulde haue put parte in Englyshe and parte in Latyne, it shoulde haue bene a defasynge of all the whole composition of medicynes. The seconde cause is, that I haue done it for your commodityе, for it shall cause you to vnderstande your receytes or medicynes in the Latyne tounge, not onlye by vse of compositions but the symples also, for there is no medicyne sette forth in this Booke, but yf ye goe to anye Pottecarye he wyll make it you presentlye, and declare vnto you euerye Symple thereof, whyche shall cause thee in shorte tyme, yf thou be dilygent to vnderstande the whole scope in makynge of medicynes oute of anye Authour in the Latin tounge. And for you my brethren in London, thys shall be to you a more commoditye, for it maye moue you euerye lecture daye, to put a question for one medycyne, So that wythin shorte tyme, you shall gather the whole knowledge bothe of symples and compoundes, and also apte tearmes pertaynynge to the arte of Surgerye in the Latin tounge, in whyche the moste parte of the arte is wrytynge.

And hereafter yf god spare me lyfe, and thys

any

my ſimple wo3kes taken in good part, I ſhall not ſeace, but ſet fo3the vnto you one herball wyth the trew pyctures of herbes and trees, wyth manye other ſimples appertaynynge to the arte of Chirurgerie: with ſo manye names, as well in Englyſhe as in all other tounges that I can learne o3 vnderſtande, wyth their vertues, p3operties, and places where they growe in. &c. Whyche booke maye be ſuche a doctrine that you ſhall in ſho3te tyme vnderſtand all theſe ſimples conteyned in thys boke and many moe, not onely they3 qualities, but all they3 hydden p3operties whyche hath bene founde out by long experience. And al though thys lyttle Booke named the Enchiridion is verye b3ieke and ſho3t, yet ſhall you fynd therin contayned, a true and ryght methode of curyng acco3dyng to both olde and newe w3iters wyth the whole ſcope and intentions curyttiue howe to apply your medicines, when to applye them, to what place they oughte to be applyed, and at what tyme. And although manye Surgians haue good medycines that may ſerue fo3 the lyke purpoſes of theſe that I haue made mencion of befo3e, yet notwythſtandynge fo3 an example I haue ſette fo3the theſe, that ye maye the better vnderſtande the true methode and waye of curynge by the nature and operation of them.

Thus

Thus I take my leaue of you deare brethren in Jesus Christ wishing vnto you the perfit knowledge of thys noble arte, whych is onelye the gyfte of the holy ghost, and you well to vse it, that almyghtye God maye worke wyth you to the comforte of the diseased or hurt person: let vs all pray, lord increase our knowledge in all vertuous artes and science, that we may vse them, to the glory of God, to whom be all honour and prayse world without end,

Thus endeth the fourthe and laste booke of the Enchiridion of Surgery compelled by Thomas Gale Master in Chirurgery.

FINIS.

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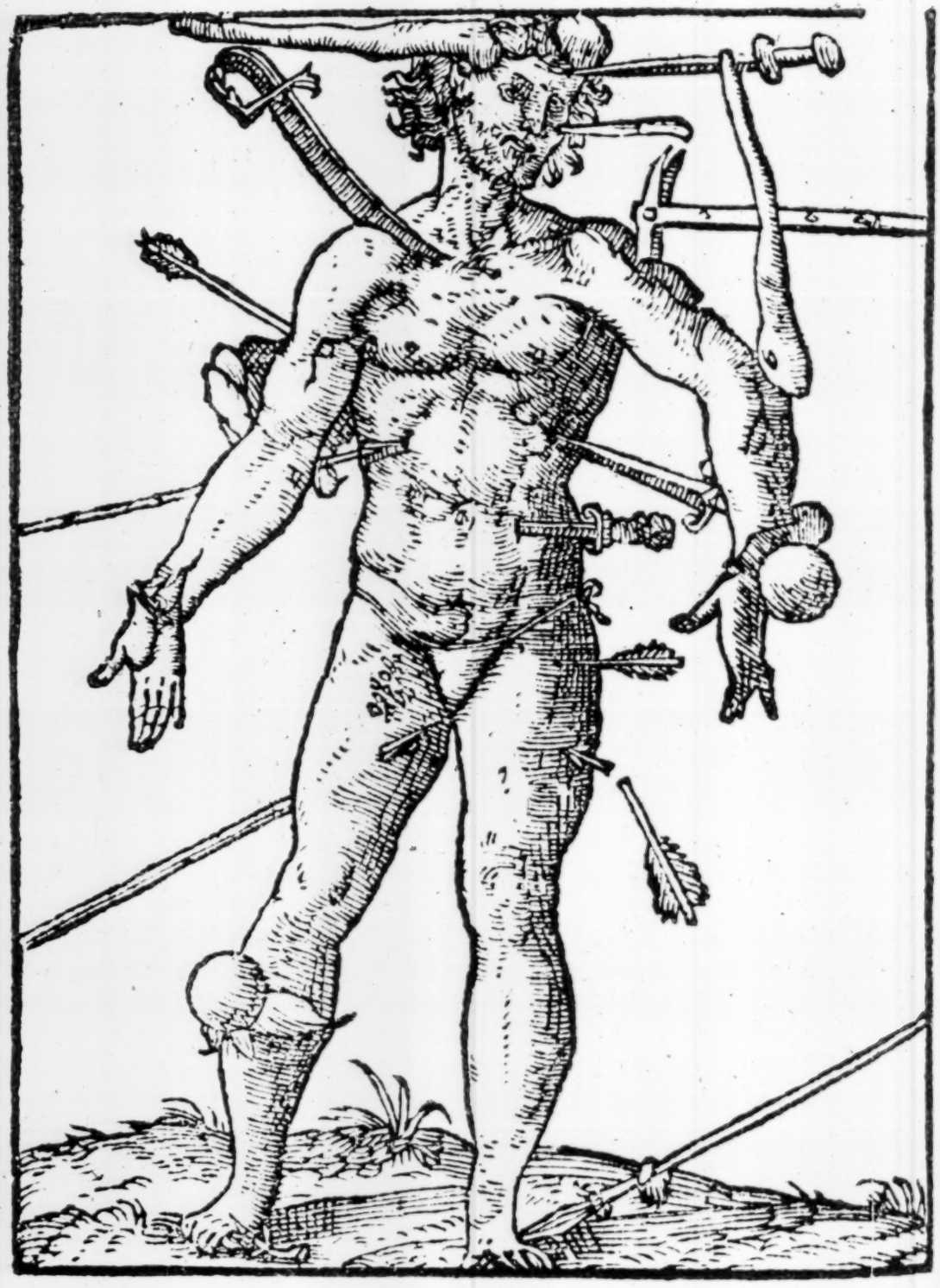
An excellent

Treatiſe of vvounds made vvith Gonneſhot, in which is confuted bothe the groſe errour of Jerome Bzunſwicke, John Vigo, Alfonſe Ferrius, and others: in that they make the wounde venemous, whiche commeth thzough the common pouder and ſhotte: And alſo there is ſet out a perfect and trew methode of curyng theſe woundes. Newly compiled and publiſhed by Thomas Gale Maiſter in Chirurgerie.



PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.



Microcosmos (whome Man we call)
of two right noble partes is made:
The soule, whose lyfe is eternall,
and body eke which hence must vade.

This last part, doth the fyrst contayne
so long as it in health indure:
Vntyll Sicknes, and all her trayne
doth proclame warre, and death procure.

Nowe Sicknes quite for to expell
Apollo haue the arte out set:
What arte, lo maister Gale doth tell,
Wherby Sicknes forse we maye let.

The Canon shotte (dreadfull and fell
lyke thonder boltes and fyry flame)
Howe to remoue the wayes he tell
in this treatise of worthy fame.

His name of right, Gale we maye call,
for Gala, mylke doth signifie:
And as mylke noryshe aboue all,
so doth this Gale right perfectly.

His sugred mylke of learnyng sweete,
doth the mynde foster and eke feede:
Showyng the way that is most meete
Microsmos to helpe at neede.

Nowe, what reward for him is dewe
that for mans cause doth such thyngs showe
The wounded man shalbe iudge trewe,
and learned heades which it doth knowe.

Iohn Feild Chirurgian.


1563
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVÆ 56

Thomas Gale Maister in Chirurgerie vnto the frendly Readers.

I Am not ignorannt (frendly reader) but many, yea the greater sorte wyll not a lytle merueyle that I shoulde go about to ouerthrowe that, whiche for a manifest trueth of no smale tyme hath bene receyued, and embraced: yea and not onely receyued, but also with the penes of diuers (otherwise well learned) confirmed and established. Me thinke I heare them saye, what kynde of felowe is this? What a Paradoxe hath he published? Is his knowledge and experience passing those famous writers, that haue left so noble workes behynde them? To all which I answere, that the matter must be tryed, iudged, and determined, not by antiquitie only, not by authoritie, but by reason and trueth. And yet I wyll attribute as muche to their autho-

rities, as some other will, knowyng my selfe farre vnable to matche with any of them. And although they be suche as I haue profited by, yet the trueth is to be preferred before their authorities. Wherfore I beseche thee louing Reader, not to condemne me, before thou hast read my worke, and wayed the force of my argumentes wherewith I do mainteyne my assertion: and conferre them indifferently with my aduersaries, & let the touche stone be Ratio et Experientia, so I do not mistrust, but at the length this my opinion shal not seeme so straung and new, as trew and worthy to be receyued of other. Thus I bydde thee well to fare, and fauour my doyngs (which for thy sake I take in hand,) as I wisshe thy knowledge in this my profession. At my house in London the .xxvi. daye of Julye.

1563.

The propoſition or Thema.

The vſuall Gonneponder is not venomous, nother the ſhotte of ſuch hoteneſſe as is able to warme the fleſhe, much leſſe to make an aſcar. Chap. i.

BEfore I do any thynge intreate of the cure of theſe woundes with Gonneſhotte: I wyll ſomwhat ſearche out the nature of the vſuall pouder and ſhotte, whome manye Surgyans (other wyſe learned) haue affirmed to be venomous, and ſo conſequently the wound made with that pouder and ſhotte, to haue the cure of venomed wounds. And here I woulde no man ſhould iudge that I deny there may be Gonnepouder venomous: but my talke ſhall not further extende then to the vſuall pouder, made of Sulphur, Saltpeter, & Cole. And that the thing folowing may be the more euident and playne, it is requiſite to conſider what that is which is called venome, what the vſuall Gonne pouder is, and what the ſhotte dryuen violently forthe with the pouder can doe.

As touching the first, what venome or poyson shoulde be (which is called in Latine Venenū, and in Greeke Pharmacon, it is no other thyng then res non naturalis, a thyng not naturall, whiche being applyed to mans body any kynde of waye, either inwardly or outwardly, through his maligne qualitie, propertie, or bothe: doeth corrupt & destroy the same. Now then seing you know what venome is, let vs diligently cõsider whether the vsual Gonnepouder doth answere to this definition: if not, then certainly it is not venomous as diuers personnes haue hetherto dreamed. And for because it is compounded of simples (Sulphure, Saltpeter, and cole) it is requisite to set out what these three are, for so shall we the more assuredlye coniecture what the compounde is, & whether it bee venomous or not. And herein for the perfect knowledge of these simples, we wyll resorte onely to the authorities of Dioscorides & Galene, the principall wryters of this matter: least in rehearsinge all the authorities of those whiche wryte of the nature of simples, the worke myghte growe greater then I haue determined. Then if these wryters fauours our opinion, we wyll further wade & consider what daylye experience sayeth hereto: or whether that there resulte a venome, the simples beyng mixed; or elles that throughe alteration

alteration in tyme of the shotte, it tourneth to venome. I thynke these be the principall argu-
ments they haue to maineteyne theyr fonde fantasie. And nowe touchinge the authoritie of the auncient wryters, I wyll begynne wyth Dioscorides, who in the fifte Booke. lxxxiij. Chapter, wryteth of Sulphure in this maner: "Sulphure viue is thought the best, whiche is "called Apyron, shininge lyke a glowe worme, "and nothing stonie. And in generall that Sul-"phure is alowed whiche hath not tasted of fyer, "waringe greene & fatte. There is great store of "it growing in Melo & Lipara. The foresayde "Sulphur, doeth heate, dissolue, & concocte spe-"dely: It is good agaynst the cough, short brethe, "and purulent excretion taken in an Egge, or "vsing the fume of it. And the sauour of the same "burnte bryngeth out the chylde in byrthe tyme, "it doeth take awaye lepry, Pentagra, & Sca-"bros vngues, mired with Turpentyne: but "tempered with Penigre it is of force agaynste "the lepzie, & taketh awaye vitiliginem, it hea-"leth the stinge of the Scorpion, Resine beynge "put to it. And with Vnegre it is good bothe "agaynste the woundes of Draconis marini, & "also of the Scorpion, with Saltpeter it taketh "awaye the ichinge of the bodye, it helpeth the "Iandiers sprinckled on his forehead, or elles "taken in a rere Egge, it profiteth muche in di-"

» stillation, & stayeth sweatyng, wyth water and
» Saltpeter it is good for those whyche haue the
» Goute, the member beyng washed in the same.
» It helpeth the thicknes or rather difficultie of
» hearinge, the fume of it being receiued by some
» hollow Pype: it rayseth those whyche are called
» Lethargos, it stayeth the flure of bloode. Bro-
» sed eares beynge anoynted with it mixed wyth
» wyne and honnye are by it cured. These be the
» woordes of Dioscorides touchyng Sulphure.
» Hys mynde in effecte concernynge Saltpeter
» in the fyfte Booke, lxxxix. Chapter, are these
» Nitrum is the beste which is lyghte, of Rose or
» whyte colour, full of holes lyke to a Sponge,
» such is brought from Bunys. It byngeth out
» humours fixed in the deepe partes. The spume
» of Nitre is Judged best, which is most lyghte,
frvable, in colour almoste Purple, or spumouce
and bytinge, suche is broughte out of Philadel-
phia in Lydea. The seconde of Egypt. Also in
» Magnesia. Bothe Nitrum and eke his spume,
» hath the strength and vstion of Salte. Further-
» more Nitrum helpeth the Collicke if it bee ta-
» ken with cummyne in hydromell, or new wyne
» boyled, or any thyng which doeth losen wynde,
» as Rue or Dyll. It is also vsed in feuers, to an-
» noynt them before the fit suspected. It is mixed
» with emplasters, which do extract and dissolue,
» it doeth extenuate & put awaye the leprie, with
warme

warme water or wyne, it doth away the noyse of the eares, inflations & perulentnes, the fylthynes of the same it doeth purge and cleanse, tempered with Vinegre instilled & put in, it helpeth the byting of dogges put with the grese of an asse or swine, it doeth open felons mixed with Resyne, Terebinthine, and in the dropsie rubbing the skinne with a figge: it causeth clearenesse of sight tempered with honnye, and the venome of Mushrumes being drunke with Posca, or elles with water if they haue bene bitten with buprestis, also to those whiche haue drunk Bulles blood with Laserpitium, & it is to be geuen also to them which can not taste theyr meate. It is to be vsed in opisthotinis remissioribus et luxatis cum cerato, and in resolution of the tongue mixed with bread. Some doe burne it on the coles putting vnder a new tosse or pot vntil it ware red hote: thus much also out of Dioscorides touching Nitrum. Nowe let vs heare Galene, who speaketh of Sulphur in this maner. Al kinds of sulphur (sayth he) hath a power attractiue, & is of hote temperament, & of subtill substance, in so much as it resist the poyson of many venomous beasts: for I ofte times vsed it against the venome of turtur marimus, & draco. And when I had taught it certein fishermen, I after a short tyme returning, they merueylously commended this medicine to me.

The

„ The vse of it is, that beynge dryed, strowed on
„ the wounde, & also tempered with spittle, for
„ when I had excogitated these thynges, I found
„ them trewe by experience. In lyke sort it wor-
„ keth beyng mired with vine: for I taught the
„ fishers suche medicines as myghte redilye bee
“ prepared, and I sayde they myghte aptly vse it
“ bothe with olde oyle, & honnye, & turpentyne,
„ and suerelye experience shewed all these so to
„ bee. Also I haue not a fewe tymes (with thys
„ medicine of Sulphure mired with Turpen-
„ tyne) healed Scabbes, Mentagra, & Leprye,
„ for it cleanseth all suche diseases, & doeth not
„ repell them into the inward parts, where as di-
„ uers other medicines whiche cureth these sic-
„ kennesses haue a mired propertie, that is to
saye, they doe bothe digest & also dryue backe.

Lib. eodem

Hetherto Galene of Sulphure. Nowe let vs heare him of Nitrum, called with vs vsuallye Saltpeter, Nitrum (sayeth he) is in a meane in
„ strengthe betwirte Aphronitrum and Salte:
„ But beynge combuste, it goeth nearer the na-
„ ture of Aphronitrum, for by vstion it is made of
„ moore subtile and thynne partes. Therefore
„ it doeth drye and digest. And if it be taken in-
„ wardlye, it doeth cutte and extenuate gros
„ and slymye humours, muche moore then
„ Salte: Aphronitrum excepte great necessitie
„ inforseth, is not to bee taken inwardlye, be-

cause

cause it hurteth the stomacke, and doeth exte- "
nuate moore then Litrum. Truly a certayne "
rustical man used Nitrum as a remedy against "
suffocation or choking, when anye had eaten "
Moushromes (they cal them in Latyne fungos) "
and it euer profited hym. And I my selfe haue "
accustomed to vse Nitrum bothe combuste and "
crude, & chiefely the spume of it, in the lyke effe- "
ctes. Thus much out of Galene also touchyng the qualities of Nitrum. The lyke wordes bothe of Sulphure and Nitrum hath Aetius well neare. Nowe by theyr authoritics you maye easely iudge that neyther these two are corrupters of mannes bodye, eyther inwardlye taken, or elles outwardlye applyed. So that they nothyng agree with the definition of venome. Yea, Dioscorides, Galene, and Aetius, founde Sulphure and Nitrum so farre from any venomous qualitie, that they vsed them as approued and excellent medicines agaynste venome. Therefore nother John de Vigo, Alphonce, nor Brunswicke, shall bee able by any approued authour, olde or newe, to proue that the simples (entrynge into the composition of the vsuall pouder) are venomous, excepte they wyll affirme the Cole to bee venome, whiche were to ridiculous, seynge that women with chylde, or those whyche labour with that sickennesse whiche is called Pica,

and

and also children dayly eate coles without danger. Furthermore daylye experience sheweth the vse of Sulphure to be profitable. For it is a common practise to geue it in mylke to chyldren vexed with wormes. And as for gonnepouder it selfe, in defect of other medicines, I haue put of it in these woundes, to dry & exsicate, to the great comfort of the Pacient. And therfore it is not in mixture & cõposition venomous, but medicinable, & hathe in hym the vertues abstersiue & desiccatiue. Neyther in those that are wounded with shotte of this pouder doe you see anye of those accidents to folowe, whiche are as inseperable in venomous shotte. Although Alphonsus Ferrius, woulde that putrefaction, corrosion, vlceration, & corruption, shoulde bee the proper accidentes in venomous woundes. As who should saye, that perspiration letted of hote & moyste humours, there folowed not putrifaction, or that there appeared not in vlcers corrosion, called thereof vlcera phagedenica. Howe aptly therefore doeth he applie these as proper accidents in venomed woundes, when they are founde in moore then an hundred diseases, I doe make him selfe Iudge. Furthermore the cure it selfe of these woundes, agreeth with those that bee contused & brosed, without the addition of any medicine or alexipharmacon against venome: yea & Alfonsus himselfe did

litle

litle conſider his aſſertiõ, when in the curation of woundes made with Gonneſhot, he forgetteth to vſe remedies againſt venome, whiche ſhould be his chiefe and firſt ſcope, if the wound were as he affirmeth. So that it is more cleare then midday that the pouder doeth not receyue any venome through the fyre in ſhotynge, and that alſo is euident in thoſe that are burnte with pouder, for there appeareth no mencion of venome in them. And the burnyng is eaſely cured & that with light medicines. Another argument that Alfonſe bryngeth, is that the compounde medicine commeth to the fourth degree in heate, and therefore is venomous, & ſo conſequently the ſhote, and therefore the wounde with it made. But let vs ſee I praye you the force of this argument: Sulphur is hote in the iiij. degree, & ſaltpeter hote in the ende of the .ij. degree. Nowe in the cõpoſition there is put one part of ſulphur, .r. parts of ſaltpeter, & one parte of cole, the cole is colde & drie, & therefore addeth not heate to the compoſition, neither the .r. parts of nitrum, being but in the ij. degree hote. How then ſhuld this pouder be hote in ỹ .iiij. degree: as for the like example, if you put to one part of boyling water .r. parts of water but half ſo hote, will it abate the heate of the one part or make it greater: I ſuppoſe none is ſo rude to cõfeſſe that it will increaſe the hotenes of the one part.

But

But in the waye of disputation I wyll graunte this absurditie. What than? Wyll he conclude all thynges that are in the fourth degree whote, to bee therefore venomous? Then surelye whote yron, fyre, burnynge coles, Pepper, Pelitorie, and a greate number of healthfull simples, shoulde bee numbred amonge venomes. True it is that venomes are deadlye in themselues. But it doeth not therefore folowe that what so is deadly that same is also venemous: this is no true conuersion. But leauynge thys as a thynge to manifest to make more wordes of: we wyll consider whether the shotte receyue suche heate that it can make an asker in the wounde as they affirme. Surelye I in the warres haue asked diuers wounded Souldiours what heate they perceyued in the tyme of the percinge of the shotte? Who all answered they felte no heate, but a certayne contusion, and I my selfe haue presentlye taken vp the Pellet when it hath laine at the marke, and felte no heate at all to bee made accompte of. But that you shall perfectlye vnderstande and be Judge your selfe in this case. Hange a bagge full of Gonnepouder on a place conuenient: than stand so far of as your peece wil shote leauell, and shute at the same, and you shall see the Gonnepouder to bee no moore set on fyer with the heate of the stone, then if you caste a

colde

colde stone at it. But saye they how happeneth it then that there is an asker in such woundes: For ther is neuer asker but cõmeth of Cauterization either actual or potentiall. To this I answere, that it is no asker, for then it were not possible there shoulde be flure of bloode in these wounds. For Galene sayeth, thynges adurent and burnyng doeth staye and staunche bloode. But you wyll replye, and saye there commeth no great flure of blood. To whiche I answere, the cause of that is, the great contusion whiche repelleth the bloode & hath so dryed the parte wounded, in thrustinge the bloode to the other partes that there is the lesse flure. But this is moste euident, that there euer foloweth flure more or lesse: and therefore it is no asker but cõtused flesh. This might also be a reason manifest to the sences, that yf the Pellet bee a cauterise (whych of force it muste be, if it doe make an asker) how happeneth it, that it burneth not garmentes when it perseth them fyrste, and then the bodye? Naye you shall neyther see, neyther smell anye token of adustition or burnynge: where as if the shotte had no more heate then a lytle sparke of fyre, it shoulde in lyke case easelye burne the garmentes.

But I thynke these argumentes sufficient. Therefore seing ỹ neyther by authoritie of any learned authour, nether by experience, neyther

yet in composition & mixture: And to conclude nother in the shoting the vsuall gonnepouder is founde to haue any venomous qualitie, or the shotte anye suche heate as is able to make an asker: Let them cease (I praye them) henceforth their founde opinion, & not obstinatly persist in their errour conceyued. Seynge that the senses doth otherwyse iudge: and not bee ashamed to imbrace a truth, and from henceforth confesse the vsuall pouder not venomous, nor the shotte of suche heate that can make an asker. Which if they doe, they shall not be tormented with suche care to take the fyre (as they commonly call it) out of the wounde. But considering that thys wounde made with Gonneshotte, is to bee numbred not amonge greene woundes, not amonge venomous, but onelye among those which are called contused, brosed, or crushed woundes: They shall wyth greate gayne to the wounded man, and muche profite and fame to them selues, haue as prosperous successe in theyr cures, as some of them haue sustayned shame and reproche. But nowe to the generall cure of those woundes made wyth Gonneshotte.

The generall Methode and way to heale ſuche woundes as are made with gonneſhot. Chapter. ii.

NOwe ſeynge (as I ſuppoſe) I haue ſufficiently proued the pouder nor ſhotte venomous: it is conuenient to ſhowe the methodicall cure of theſe kyndes of woundes. And there are two intentions properlye hereto belongynge. The one is to delyuer the wounde of all ſuch thynges as are not agreing to nature: The other is reſtoring of ſuch thyngs as are loſte and periſhed. I call thynges not agreyng with nature, not onely ſhotte, iron, ſplintes, or ſhyuers of wood, cloth, duſt, oyle, or ſuche lyke: But alſo the cloddes of bloode, matter, broſed fleſhe, and ſuch lyke as haue no ſocietie with nature. The waye howe and in what ſorte theſe things are to be remoued, you ſhall fynde in the. b. Chap. of the firſt booke of my Enchiridion. The reſtoring of that whiche is loſt is properly the office of nature, as to ingender fleſhe, bloode, and ſuche lyke partes as are to be engendred. Notwithſtanding the Surgian herein is natures Miniſter, and ſhall labour to bringe the parte to hys ryghte temperature: And it ſo reduced to conſerue it in the ſame eſtate.

And although in the .vj. Chap. of my Enchi-ridion, I haue shewed a generall methode of curynge contused woundes: yet I wyll not re-fuse for the helpe of the inexpert, to set out in thys place a more ample and large maner and waye of worckynge. Therefore the cure of these kynde of woundes, is to remoue thynges fixed in the woundes with instrumentes there-to conuenient. As Crowe billes, Goose billes, Terebilles, Nippers, or Tonges. And then to doe your indeuour to cure this wounde, as you woulde doe contused and bruised woundes. And for because the bruised flesshe muste of force be taken awaye, and that with so muche expe-dition as you conuenientlye maye, wythoute sharpe and byting medicines: Therefore you shall to thys wounde contused take of precipi-tate Mercurye Dragme, j. or accordynge as you shall see cause, and mixe it wyth simple oyle, or oyle of Roses, or with Butter, or freshe Barowes grease, and laye it to the contused places. Bartholomeus Maggius an excellent Chirurgian, in these woundes after ỳ thyngs fixed in, be remoued, the flure of blood stayed, and the wounde cleansed, vseth to put into the wounde, of hys oyle one droppe, vnto which oyle he geueth great commendation, in all con-tused woundes, and the discription of it is as folowth.

Rec.

Rec. Reſinæ abiectinæ, v. vnce.
Olei roſacei, ij. vnce.
Sem. Hypericonis, v. dragmes.
Sem. Momordicæ, iij. dragmes.

The ſeedes ſhall bee broſed, and put in a duble veſſell with the oyles, and let them boyle halfe an houre. Then ſtrayne them, and keepe them to thy vſe. This oyle doeth aſſwage doloure and payne, it doeth concocte and digeſt, and preſerueth the ſounde fleſhe from corruption and putrifaction. There are alſo other medicines apte and conueniente for theſe woundes, but I wyll repete one which is ſinguler, and as I myghte terme it merueylous: For it ſeperateth the contuſed, ſwellynge, and putrified fleſhe, and that without dolour or payne. And furthermore it ſo concocteth and digeſteth, that you ſhall not perceyue anye kynde of cruditie in the wounde, and thys medicine is called vnguentum Egypſiacum. Wherefore I wyſhe that the Surgian doeth both dyppe hys tentes therein, & alſo laye it on his ſplegeantes. For in two dayes or three at the moſte, yea in great contuſed woundes, it worketh his effect. And here by the waye I muſte put the Surgian in memorie, that hys tentes bee not to bygge or longe, that they bee

not rough and hard, for the bigge tent doth extend the member, the longe doth pricke and induce dolour: the hard and rough doth as it were teare the flesshe. Let the tentes and splegeants therefore be made of olde and fine linnen cloth, that it bringeth not paine to the affected parte. After the contused flesshe be removed by the vse of your Egipsiacum: then applye to the place thinges that will mundifie, and moderatly dry, as Hony of Roses tempered with the flower of Barlie mealle, or Beane flower, vnto which you maye adde, Aristolochia rotunda, Centaurium minus, Euphorbium, Aloes, Turpentine, Frankensence, Plantaine in pouder or iuyce, flowers of Pomgranates, Cipres nuttes, and such lyke according as the nature of the part, and time of the yeare doth require. And here I speake not either of purging, letting of blood, scarifieng, and boryng, more then to admonyshe them, that these are necessarye and must of force be vsed in these wounds: Because I would the surgian should not raishly attempt herein anye thynge, for the greate peril that maye folowe. But rather vse the discreate counsell of the learned Phisition. Nother in those woundes whyche are greate and perilous wyth shotte, I would haue them straite wayes to dysmember the paciente (as many raishe

raisshe Empericke nowe in these dayes vse to doe) except Sphacelous or gangrena haue vterly mortifyed the part. For I my selfe haue cured a certayne Souldyour who was shotte wyth a base, throughe the thyghe: and there was more then three fyngers bredthe taken awaye of the bone in length, wyth the shotte, and yet (God be thanked) throughe diligence and payne the patiente was restored to health: and hath the perfyte vse of the legge wythoute anye payne or greefe more then that it is shorter then the other. And thus muche touching woundes of Gonneshotte in generall. The reste where as the perticuler cure varieth from the generall methode sette oute accordyng to the part wounded, you shall haue in their proper places folowyng.

Of a symple wounde in the head made with gonshot. Chap. iii.

In woundes made in the heade wyth gonneshotte you shall diligentlye consyder whether the wounde be symple or that it be compounde. For accordynge to their diuersitye, the intentions curatyue do much varye and chaunge.

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And for because there maye be these two kindes of woundes, I wyll seuerallye of them entreate, begynnyng with a simple wounde first. Therefore if the wounde bee simple, the cure is easier, and wythout daunger: If that the Patient haue not a bodye repletc wyth euyll iuse, or haue tasted of that contagion, whiche Maister Doctour Cunyngham in my iudgement doeth of all other moste aptlye geue to name, Chamęleontiasis (vulgarlye it is called morbus Gallicus) as appeareth by hys booke written on the same. In whyche he showeth the errous of such as haue hetherto hereof writen: and setteth oute a most perfite methode, and newe way of curing, without fumes, guaicum, baguentes receyuing into there composition Hydrargyron, or such lyke. But nowe to that from whence we are digressed. If the bodye of the wounded pacyente be affected as is aforesayde: although the wounde be but small and simple, yet most triflyng woundes in such bodies are not cured wythout much diligence. Wherefore in such bodyes you muste labour to purge the ill Iuse, or in Chamęleontiasi, bothe to let bloode, purge, and sweete, and by dyet, and thynges conuenient rectifie the bodye and principall members of the same. So shall the cure of the wounde bee moore spedye,

and

and alſo proſperous . But nowe to the frewe cure of ſuche woundes as are called ſimple. Fyrſt let the heare be ſhauen round aboute, after apply this vnguent folowyng.

Rec. Precipitati optimi, ij.dragmes.
Butyri ſalis experti, } ana.dragme.j.ſe.
Olei roſarum, }
Croci, ij.graines.

Wire theſe and make an vnguent whiche you ſhall laye on your ſplegeants beynge made of ſofte linnen clothe, and applye it to the wounde. Then you ſhall laye on the wounde alſo Bolus armenius tempered wyth oyle of Roſes and the whyte of an Egge , lyke an vnguent, to defende the parte from accidents. And this ſhall ſuffice for the fyrſte daye : You maye alſo at the begynnynge, vſe in ſteade of the ſeconde vnguent , thys comfortable cataplaſme folowynge.

Rec. Oleorum myrtillorum, } ana. ij. vnce.
Roſarum, }

Baulastiarū,
Rosarum rub } ana.j.vnce.
Boli armeni,
Sanguinis draeonis, } ana.j.dragme.
Myrrhæ, halfe a dragme.

Make of all this a cataplasme accordynge to arte. The second daye you shall vse some medicine that both doeth digest, and also moderately dry the wounde of whiche sorte this is one.

Rec. Terebinthinæ lotæ, j.vnce.
Mellis rosarum, ij.vnce.
Butyri salis experti, iij.dragmes.
Farinæ hordei,
Aristolochiæ rotundæ, } ana.j. dragme.
Radicis ireos,
Aloes, halfe a dragme.

Myre these and make all in an vnguent, and vse this vntyll suche tyme as there appeare signes of concoction in the wounde, at whyche tyme, you shall no more vse Butter in the vnguent, but in stede hereof myre with it this powder folowynge.

Rec. Sarcocollæ, j. dragme.
Corticū radicis papaueris, half a dragme.
Farinæ orobi, } ana. dragme. j. se.
Myrrhæ, }

Make this in pouder, and temper it with the other vnguent. And vse this vntyll the wounde be perfectly cured. And this is the cure of a simple wounde in the head.

Of woundes compounde, which chaunce in the head throughe shotte. Chap. iiii.

In the cure of compounde woundes of the head, you must first of all (because you maye the suerer iugde and discerne) vse insition and make Cranium bare: the forme of cutting most apt, is to make it in forme of two right lines crossing themselues in the middes: as in the picture appeareth. After which insition made, you must with some instrument sharpe and flatte, rayse the skynne and flesshe from Cranium. And yf you see anye shotte or peece of bone, which maye easely be taken out: you maye doe it with some conuenient instrument.

But

But if it wyll not without difficultie be taken awaye, then weate your stuphes in astringent wyne and benegre mixed wyth Bole armoniake, and sanguinis draconis: and laye it to the wounde. The nexte daye folowyng you shall vse this recept next insuing foure or fiue dayes, for feare of inflammation to folowe.

Rec. Boli armeni, ij.vnce.
Albumenu ouorum,2.
Olei rosacei omphacitis, iij.vnce.
Croci, iij.graines. misce.

Then you maye verye well vse thys digestiue folowynge so longe as shall bee thoughte conuenient, and that vntyll the thynge fired wyll easely be taken out.

Rec. Terebinthinæ lotæ in vino, iij.vnce.
Ouorum vitella, nu. 2.
Olei rosati, ij.vnce.
Aloes, ij.scruples.
Croci, iiij.graines.
misce.

In other thynges the cure of it doeth not differ from the cure of simple woundes.

But

But yf anye vayne vnder Cranium bee broken, and maketh effusion of bloode: yf dura mater, or pia mater be rent or torne, yf Cranium be broken, and thereby the brayne is depressed, then you must wyth all expedition set a trappan on Cranium, & geue the woũd vent, and take out the bloode, or matter, or what ells doth trouble and depresse the brayne. And for because you may knowe perfectly, whether the brayne is hurte or not (although youre sences outwardly can not discerne anye thynge) note these signes folowynge. Yf he haue vertiginem, or thinketh he seeth many lyghtes, yf he haue alienation of mynde, or swellynge and tumour of the eyes wyth redneſſe, or bleeding at the nostrelles or eares, also vomityng, resolution of some one parte, and appoplerie.
These bee infallible sygnes that the Brayne suffer, when as they consequently folowe after the head be wounded. And when you are constrayned to vse a trappan, you shall make tentes of Cotton, Wolle, or Lynte, and put into hys eares, and commaunde a man to compresse wyth hys handes the Patientes eares, lesse the noyse make hym to muche affrayed, and faynte hearted. And looke that you haue alwaye in readineſſe softe and fyne clothes wherewith you maye mundifie Cranium, and wype away the bloode. Then looke you haue a

pæce

peece of sylke or sendall aunswerynge to the o-
pening of Cranium well wette in auster and
stipticke wyne, or in oyle of Roses, yf there
doth appeare any cloddes of blode to laye vpon
the pannicles, and put this sylke vpon the pan-
nicle and wyth an instrument putte it vnder
Cranium. Then put stuphes made of the finest
carded woll you can get, and wette them in oile
of Roses, and lay them on the place. After that,
fill the rest of the wound with clothes dypte in
the same wine and oyle, then wyth your hands
thrust it out, and laye vppon thé same clothe
Bole armoniake myxed wyth the whyte of an
egge and applye it vppon the same wound, and
for to defende the member from dolour and in-
flammation, you shall laye rounde about the
wound this medicine made of Mel rosaceum,
Farina hordei and Iris. And whē the hole made
in Cranium dothe begynne to be fylled wyth
fleshe: then wyth a raspitorie take awaye the
sharpe edges of the bones, and bryng the lyps
of the wounde by lytle and litle into their pro-
per places. And yf through the negligence of
the Chirurgian, or the yll habite and disposi-
on of the pacientes body, or any distēperature,
there foloweth corruption to any part affected of
the braine, then you must againe returne to the
vse of precipitate or Vnguētum Egyptiacum,

which

which is most excellent in this case. And euer after the doctrine of Hippocrates and Galene be mindfull that thou worke safly, spedely, & wyth so litle paine to the pacient as possible you may. Wherfore handle the parts tenderly, and wyps al filthy matter away. Let ỹ rollings only serue for to kepe on the medicines, wherfore let them not be to straite and so to prouoke paine. Let the belly be fluxible and lose by clysters, suppositories, or purgation: If that it be not naturally soluble. And in thys case you maye gyue the wounded pacient euery day or els euery second daye, one pille of Agarike or Aloes. The diet muste be most smal and slender from the tyme of the receiuing the wounde vntyll the .vij. day. The meate shalbe the brothes made with a chicken, the drinke shalbe water boyled with suger and a litle cinamom, or els small ale and beare. From the .xi. or .xiij. day you maye giue him at meate a litle french wyne, or if the wyne be to strong mire it wt fountaine water, or water of bugloss & borage. This brothes made as before wt chickens or a capon. And you may thicken the broth wt bread, with almones, or such like things that do norishe. Notstanding let al be done with great discretion. And that the pacient obserue his due houres of diner and supper. Other thinges required for the order of. 6. rerum non nat. Let the Chirurgian lerne of ỹ skilful Phisition.

Of

Of woundes in the Breste. Chap. v.

Although the woundes made with gonne shotte are in all partes of the bodye one in effect and græfe: yet doth the cure differ according to the place wounded. Which thyng prouoketh me to describe here also the seuerall cure of woundes made in the Breste. Wherefore if the wounde in the Breste perseth not through, you shall cure it lyke other woundes. And the first two dayes applye vnguentum ex prȩcipitato, or some other, which hath the lyke facultie. And after ỳ vse some medicines which will gently excicate & mundifie, as mel rosarum simplex, or elles mired with Turpentyne, Aristolochia, farina hordei, and suche lyke. And it shalbe right good from the second day, vnto the fourth or fifte daye to put to your abstersiue medicines, freshe and new Butter. So you may make your compound after this maner.

Rec. Mellis rosarum, j. vnce.
Terebinthinæ, } ana. ij. dragmes.
Butyri recentis, }
Farinæ hordei, } ana. j. dragme.
Aristol. rotundæ, }

Myxe

Dype these together and dyppe your tentes and spleageants in them. But vpon the wound you shall vse to lay thys medicine folowing.

Rec. Albumi. vnius oui.
Olei rosati j.vnce.
Boli armeni j.vnce and a half: misce.

But when as that matter dothe begynne to appeare in the wounde, then in the steade of thys laste remembred, you shall vse Emplastrū ex Chalcitide, vel Triapharmacon, made of Oxeleum and argenti spuma, spreade on a linnen clothe and laied on the wounde. And when the wounde is clensed from superfluous humiditye, you shall cure the wounde lyke those, whereas wanteth some generation of flesh wherefore for thys intention dyppe your spleageantes in thys medycyne, to whose composition is required.

Rec. Succi Myriophylli
Mellis rosati
Terebinthinę
} ana j.vnce.
Farinę fabarum
Hordei
} ana .ij. dragmes and a halfe.

Thuris
Aloes
Aristolochię rotundę } ana. j. dragme.

Myxe them together, & with a fyne syre these on the fyre, vntyll they be well incorporated: and reserue it to thy vse. Now if the Pellet or shotte haue pearsed the inwarde partes it is deadlye and mortall bothe for breaking some bones in the brest, or rybbes (for the pellet can not passe betwixte the rybbes without breakinge of some of them, excepte the shotte be small lyke hayle shotte) and also for pearsynge the inwarde partes. Not withstanding where the Pellet or shotte moueth in the capacitie of the Breste, you shal with a Probe handsomly bent for the vse, search where it is, and it being founde, bringe it vp to the orifice of the wounde: and then with your Forcepes, take it oute, as also the bloode. This beyng done you shall vse this vnguent folowing, two dayes onely.

Rec. Olei rosati omphacitis, iij. dragmes.
Terebinthinæ j. dragme.
Pulueris præcipitati iiij. scruples.

Myxe al these well together, & dippe your tent in it. But here you must take hēd that the tent be made of most fyne & soft linnen clothe, & that the length of the tent be no more then the thicknes of the ribbes: nether the bignes more then serueth the orifice of the wounde. ¶ And

And vpon the wounde you shall applie in maner of an emplaster, Bole Armoniacke the whyte of an Egge and Oyle of Roses, vntyl there appeare concoction in the wounde: at which time you shal no moze vse it but in ỹ place therof you shal vse emplastrũ Barbarum, oz elser Chalcitide, whose cõpositions you shall fynd in my antidotarie. After the seconde daye, you shall vse this vnguent.

Rec. Butyri recentis ij. dragmes.
Mellis rosati. half an vnce.
Glutinis albotin iij. dragmes.
Aloes
Farinę hordei } ana. j, dragme.
Pul. ireos
misce.

When as you haue vsed this medycyne the space of eight daies, you shall leaue out the butter and in place thereof duble the quantitye of honny. And you may make an iniection to mundifie the brest with water in which is boyled liquirice, Figges, Raysens, and the lesse centaurye, oz lupines. The rest of the cure of these woundes doe not differ from the methode set oute in the seconde Booke of my Enchiridion.

Of woundes wyth shotte made in the thynde ventricle oz belye. Chap. vi.

The woundes made with gonshote, yf they be onely about the belly or flankes, wyth outpearcing throughe, and hurtynge the spine of the backe, are cured as other symple woundes made in the flesshe. Fyrst takyng out the shotte, then to remoue the broised and contusid flesshe wyth medicines conuenient, as you se set out in the curyng of woundes of the heade, and brest. Then the iij. day to vse some abstersiues which also doe somwhat exiccate and dry. But yf the shotte haue persed through the belly and haue wounded either the stomacke, lyuer, splene, kydneys, intestynes, bladder, or anye of the great vaynes or arteries: then there is no hope of life to be loked for. But if the shot haue persed the belly, and yet not wounded anye of the forenamed members, then the shotte being taken out there is some hope of recouery: but yet the pacient is not free from perill and daunger. Therefore you shall labour to get out the shot, placyng the pacient vpon the wound, and roll him from part, to part, prouokyng therby the shot to come to the orifice of the wounde. Then wyth a probe made apte and conuenient for the same vse, take out the shot. But if so be that you cannot wythout great payne & much searching fynde the shot, it is much better to let it remayn within, then wyth prouoking of mortall accidentes labour the takynge of it out. For

there

there is no daunger in letting the shot remaine in. And there is great perill in longe serchyng for that the ayer doth alter the inward partes: and in searchyng, some inwarde parte maye be hurte wyth the probe. I my selfe seruyng at muttrell vnder the myghtye and puissant Prynce Henrye the eyghte aboute the yeare of Christes incarnation. 1544. had the experience of eleuen sundrye souldiours shot into the bodye wythoute persyng of anye inwarde member. And I couloe not get oute the shotte wyth oute great difficultie and makyng incision: and therefore I letting the shote remaine within the body did perfitely cure the pacientes. And they lyued longe after wythoute any greefe or payne prouoked by the shotte. In lyke maner about the yeare of Christe. 1557. when as Philip kyng of Spaine besieged saint Quintynes, I then seruyng vnder him, had diuers souldiours in cure wounded in lyke sorte as is rehearsed: and the shotte still remayning in the body, they were (thanked be god) restored to helth. I also doe nowe call to remembraunce that there came a souldyour to London whan I fyrste practised the arte of Chirurgerye, who was shotte in the bellye at the siege of Pauia. And made perfectlye hole the pellit remaining within. This Souldour. vii. yeares after he was thus cured commynge to

the citie, had a great apostume in the flanke. I then amonge other beynge called to the cure, we applyed suche medicines to the apostume, as we accustomablye doe, to apostemes named Bubones, ingendred in that parte. And when the apostume brake, and came to suppuration, we tooke out a Pellet of Leade, and after dyd cure the Ulcer, and made the man whole. These I doe, beynge onely for cramples sake that other Chirurgians beynge in the warres shoulde not to muche busye themselues, or put the Pacient to paynes and in daunger in takynge out the shotte. But nowe to that from whence we are digressed. The shotte beynge taken out (if it may easely be done) the contused and brosed flesshe removed, and the abstersive medicines applyed: you shall precede with incarnatiues, & consolidatiues, as is set out in the cure of wounds of the belye, in the .ij. booke of my Enchiridion. And if blood or matter be in the belly, vse wyne warmed, & make infections. But how much the sooner thou doest haste the cure of the wounds in the belly, so muche thou makest the pacient surer of life, & thy self of worshyppe of the cure. Thou mayest vse well in these woundes when nede shall require, this incarnative folowynge.

Ret.

Rec. Thuris,
Aloes,
Farinæ hordei, } ana. j. dragme.
Terebinthinæ
Mellis,
Succi myriophylli, } ana. ij. dragmes.

You shal mixe the flower with the iuise, then dissolue and melte the honnye & turpentyne at the fier. Then put all together and make an vnguent. With this you shal spreade your splea-geantes & dyppe your tentes in. And when the flesshe do growe well, & that the wounde begyn to be filled: you shall applye suche medicines as are astringent, & doth dryer as honny mixt with pouder of Bay berries, Mastick, flowers of Pomgranettes, & Turpentine. And for an em-plaster you maye vse emplastrum Chalcitidis, set out in the seconde booke of my Antidotarie. You maye not forget in these woundes of the bellye to open a vayne in the arme on the same syde: and commaunde the patient to vse quiet-nesse in bodye, & flee perturbations & affections of the mynde, so much as in him is possible.

Of the cure of woundes made with gonneshotte. in the partes called Artus, conteyninge the armes and legges. Chap. vii.

Textus. The

The cure of such woundes as happeneth to the armes and legges, is after the methode set out before, For first you shall (the wound being made in the fleshye parte) with your probe searche oute the shotte and with your crowes belle take it oute.

But yf it haue well neere persed throughe the member, and that you maye feele it in the oppositye parte, then cutte the place, and take oute the shotte, regardynge alway that you cutte none of the greate vaynes whyche layeth towarde the skynne. But yf the shot cannot easelye be founde, you may not therfore cease the cure of the wounde, but procede in thys maner. If the holes of the shotte doe differ and are distaunte, you shall rolle fyne Lynte together, and put it into the eye of your Probe made lyke an Nædle, and drawe it through the wounde. But yf the Muscules doe not suffer thys: Then you shall instyll and powre into the wounde the vnguent made with Butter, Precipitate, and my Egyptiacum (whose composition is in the Antidotarie) and let it pearse into the wounde. Then you shall make Tentes and dyppe them in the same, and put into the orificies of the wounde, and vpon the partes roundc aboute, you shall applye the medicine made of oyle of Roses, Bole armoniake, and the whyte of an Egge

myxed

mired together. This medicine you shall so longe vse vntyll you bee paste suspicion of inflamation, and other accidentes. And when there appeare sygnes of concoction, you shall put but one parte of Butter, and two partes of Honnye. After whyche thynges done, the vse of thys medicyne is conuenient.

Rec.	Succi apij Myriophylli Terebinthinę	ana.j.vnce.
	Mellis	ij.vnces.
	Farinę fabarum Hordei	ana.ij.dragmes.
	Aristolochię rot.	j.dragme & a halfe.
	Aloes.	j.dragme.

First mixe the pouders wyth the iuyces and Honny on a softe fyre: then put in Turpentine. And in sommer or whereas the paciente is of colorike nature, in the place of apium you may put the iuyce of plantine: or yf you wyll more spedely exiccate and dryc, put to it Litharg[i]rū made in moste fyne pouder, or els lyme washed many tymes, and dryed and made in fyne pouder. And when as the wound is well mundifyed: you maie vse some incarnatyue as this for example.

Rec.	Terebinthinę,	ij.vnces.
	Mellis	j.vnce.
	Aloes	} ana.j.dragme.
	Thuris	
	Farinę hordei	
	Aristolochiæ	halfe a dragme

And now you must haue regard to your tents that you daylie make thē shorter and lesser. And so cure the woūd. But if it happeneth that thorow the violence of the shot, not only the fleshy parts be wounded, but also the bones fractured and broken: then you shall vse a duble kynde of cure. For the cōtusion must be cured as I haue here before made mention: and the bone fractured must be vnited & vsed as is set out at large in the fourth boke of my Enchiridion. Sauing ỹ you shal not vse ligatures & splents in this kind of woundes. But first you shall labour to take out the shot. Next to remoue the contusid & brosed flesh, then to procure the generation of new flesh. After which, shall come the vnition of the bone. And because you may kepe the part without motion when as the bones are ioyned: you shal vse the instrument which is set out for fractured legges in the ende of this boke. And then couer the member with soft clothes that it may be defended from the iniurye of the ayer.

Of

Of the cure of those that are burnt with gonnepouder. Chap. viii.

The cure of those that are burnt with gonpouder doe require none other cure then if they were burnt with fyre, or other flames Wherefore it were superfluous to make mention of the cure of it in this place, yf it were not that those which vse shottyng in gonnes as subiect to the flambe of pouder: and therfore I haue placed it wyth this booke. Wherfore yf the skinne be not yet vlcerate, you shall apply to the parte, oyle of bytter almondes, oyle of Oliues with salte, or that which is in comon vse, to take two partes of the iuice of Onions, and one part of barnisshe. But yf there be vlcerations then you must make this vnguent folowing.

Rec, Olei oliuarum ij. pounde.
Secundę corticis Sambuci iiij. vnces.

Boyle these on the fire, then strayne them strongly, after adde to them.

Cerusę halfe an vnce.
Plumbi vsti
Lithargyri } ana. iij. dragmes.

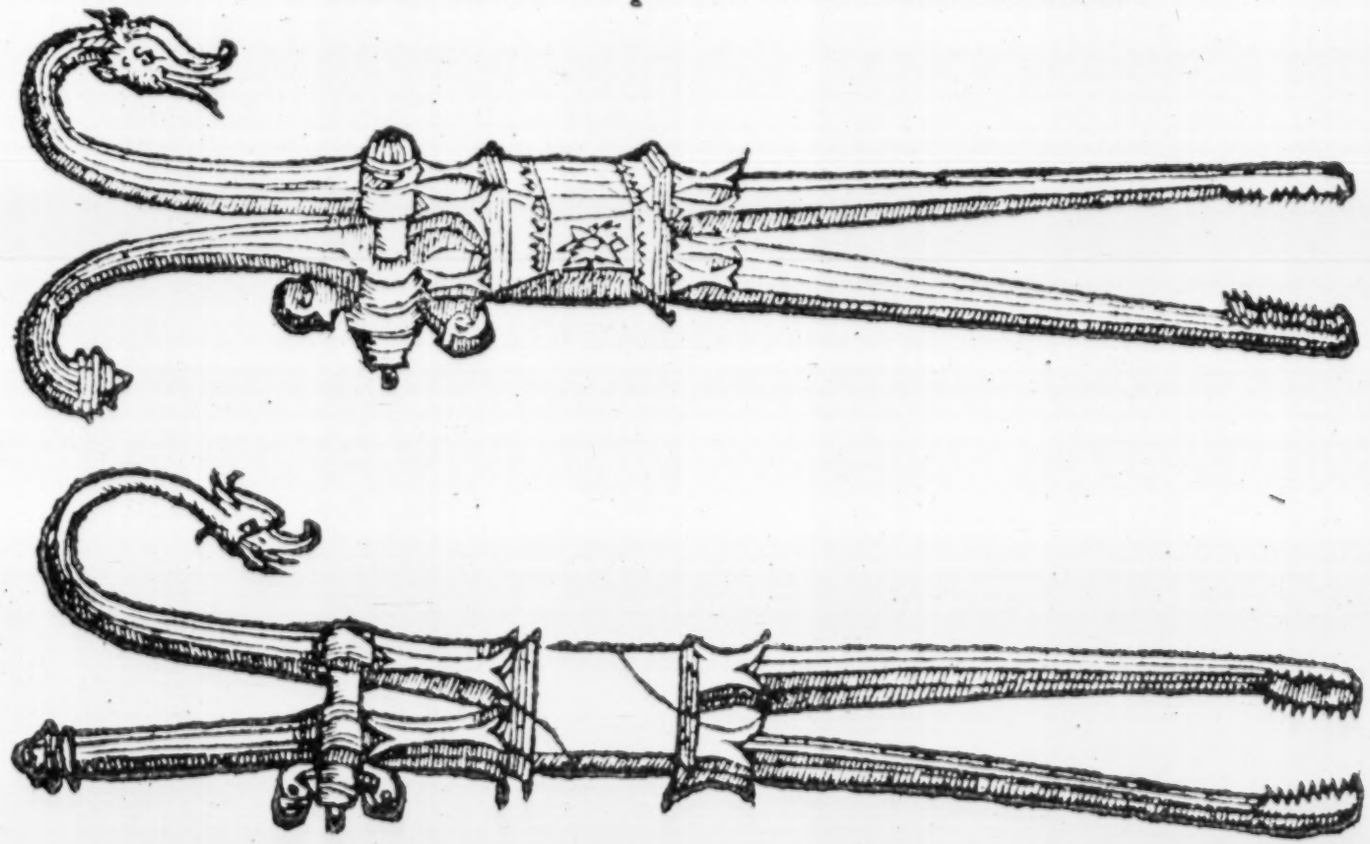
Byre

Myre theſe with a leaden peſtell in a mo3ter, and make thereof a Lynimente acco3dynge to art. But you muſt take hede that you open not the bladers, fo3 the ſpace of .y. o3 .iy. dayes : fo3 when as they are opened at the beginning they b3ing dolour & paine. The inflammation ceaſed and the accidents which may happē being put away: he reſte of the cure is as the cure of bleers : whyche varyeth acco3dynge as the bleer is ſymple , o3 compounde.

Thus endeth the treatiſe of Gonneſhotte , compiled and publſhed, by Thomas Gale maiſter in Chirurgerie.

FINIS.

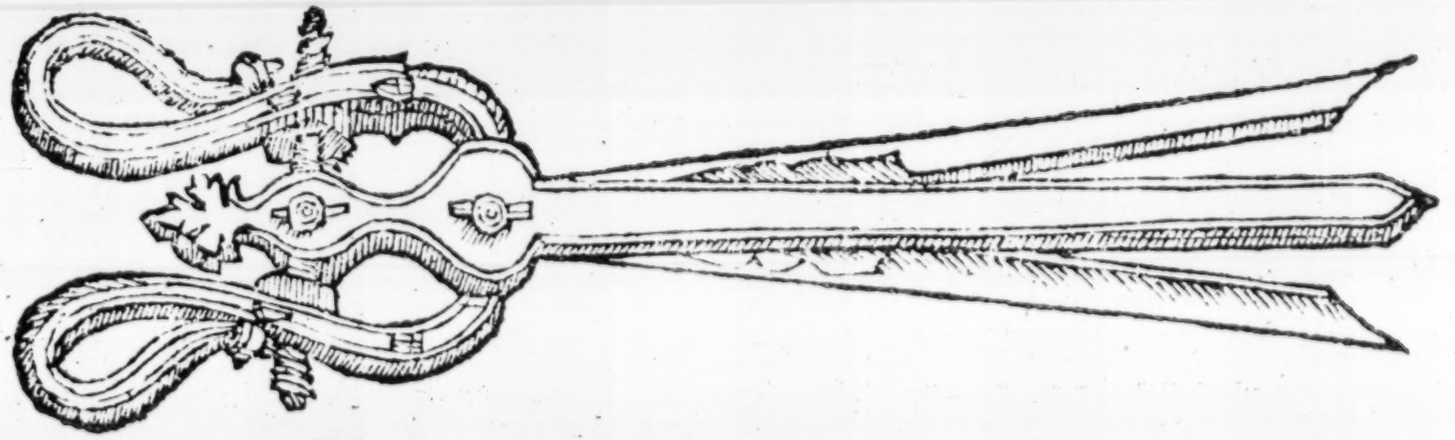
Theſe inſtruments be called Forcepes and are vſed for to take out ſhotte or pellettes in vvoundes. &c.



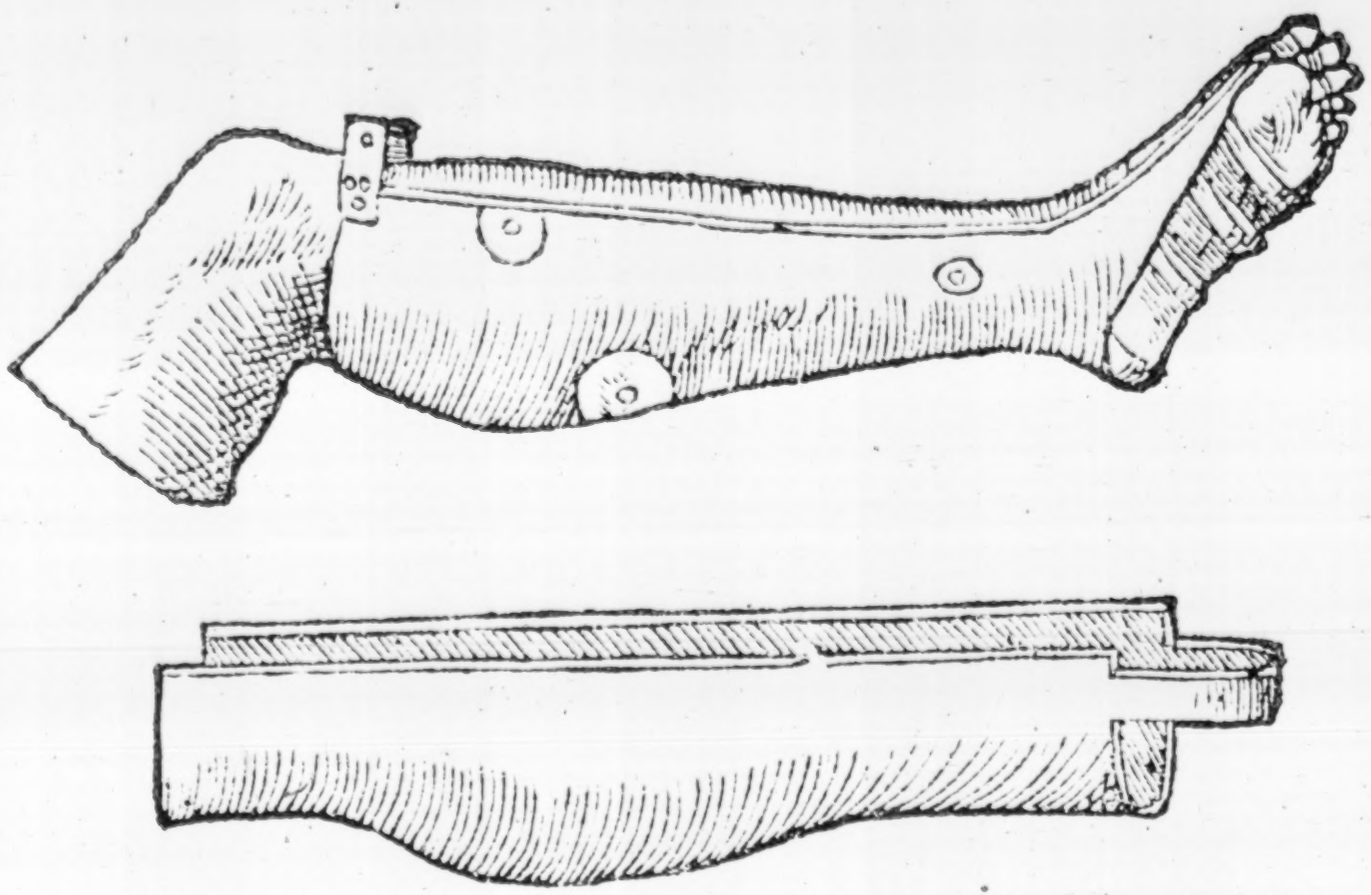
These Syringies ſerue to make iniections into the vvondes.







These are the inſition ſheares to enlarge a vvounde.



This inſtrument is called Goſsopium and ſerueth to lay the fractured legge in, being broken vvith Gonneſhote. &c.

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An Antidotarie

conteyning hidde and secrete Medicines simple and compounde: as also all suche as are required in Chirurgerie: faythfullye gathered and published by Thomas Gale Maister in Chirurgerie.



PRINTED AT LONdon by Rouland Hall, for Thomas Gale.

1563.

Antidotarie. WHy vvith ſo coye, and ſtraung a looke,
doſt thou me thus beholde?
Am I vnknovven vnto thy ſect,
or my vſe manifolde?

Chirurgian. VVhere as acquainted men bee not,
vvhat ſhoulde they faune and ſmyle?
I knovve you not my lookes it ſhevve,
I vvyll you not begyle.

Antido. My maiſter hath ſent me abrode,
to his great coſt and paine:
VVilling me vvith Surgians to dvvell,
to their vvorſhippe & gaine.
If that but ons my name you heare,
you vvyll me knovve certaine,
Antidotarie cald I am,
vvhich great treaſures containe.

Chirurg. Antidotarie ſhould I knovve,
but thy ſpeach, & araye,
(VVhich yet I haue not hard or ſeene)
doth conterary ſaye.

Antidot. In deede I vvas naked & bare,
vvith errours eke infect,
And barbarous names of medicines,
to vvhich I vvas ſubiect.

But lo, I am nowe garniſhed,
vvith medicines of price
VVhich olde Hippocrates did vſe,
and Galene did deuiſe,
Auicen, Raſis, Meſue,
Guido, Brunſvvike, Vigo:
And all my maiſters trauailes eke,
he hath added me to.
And though my ſpeach for vvant of vſe,
ſemth ſomevvhat ſtraunge to thee,
Yet if learning thou vvylt imbrace,
and acquaint thee vvith me,
Familier thou ſhalt me fynde,
eaſye to entertaine.
Then geue me leaue thee to imbrace, Chirur.
do thou vvith me remaine,
And for thy ſake I vvyll not ſpare,
labour, and tyme, to ſpende.
Yf thou ſo do, great gayne vvill ſpring, Anſidot.
and men vvil thee commende.

W. Cunyngham.


1563.
THOMAS GALVS CHIRVRGVS
ANGLVS ÆTATIS SVE 56

Thomas Gale Chirurgian, vnto the frendlye Readers, Salutations.

When as I hadde finished my Institutions, Enchiridion, and Treatise of woundes made wyth Gonne shotte (louynge Reader) I dyd ryghte well perceyue that the preceptes of the arte in them conteyned, shoulde not so farre extend and serue so well thy vse, excepte I did set oute suche medicinal instruments, as bothe are mencioned in the same bookes, and of necessitie are required in the arte of Chirurgerie: as vnguentes, oyles, Baulmes, lotions, wounde drynkes, Emplasters, Cerotes, Cataplasmes, Trochisce, Pouders, & such lyke. For although I haue set out diuers approued medicines in other my workes, yet they be but as an handefull in comparission to this Antidotarie, and put forthe there onely for

example sake. Wherefore I haue drawen oute of the moste approued Authours olde and newe, suche medicines as bee both easely prepared, and of moste effecte and vertue: addynge hereto what I haue founde profitable and necessarie by longe experience and practise. And althoughe perchaunce at the fyrst it may seeme somwhat obscure and harde (because I put the receptes and compositions in the Latyne tongue) yet yf you doe accustomablye vse to reade them, and conferre either wyth the Apothecarie where as you doe not perfectly vnderstande the same, or elles vse the helpe of a Dictionarie, they wyll bee vnto you bothe familier and playne. And thynke not that I haue done thys (louynge Reader) because I woulde make it moore hearde and difficultie: But I dyd it chiefelye for that the Latyne names are vniuersallye vsed, & that there are an infinite number of simples which want Englyshe names, & those (for the moze part that

may

may be Englyshed, are not vniuersally knowen through England by that same name: because of the diuersitie that is vsed in callinge of simples, according to the countrey. And yet I doe not omit to set out in the English tongue as well the methode and way of composition of suche medicines, as I haue placed in this Antidotarie: as also faithfully declared their vertues and vse, for what causes they are inuented, and for what infirmities they serue. And although it seeme harde, obscure, and difficulte at the first face, yet folow thou styll the counsell of the wyse Poet who sayeth:

Assiduo illisu durum cauat vndula saxum.

Whiche Uerses maye bee englished with vs in this maner.

The watrie droppes so moyst and softe,
Doth perse hard stones with dropping oft.

So in like case (dere reader) the hard names of medicines by oft reding will be perfed, I meane they wyll be as facile & easy vnto you as possible may be.

Nowe there resteth no moze but that thou wylte with the same good wyll and mynde receyue these my trauailes and expences, that I frely do offer them vnto thee. So doynge I wyll not here staye God wyllyng, but participate other of my labours with thee. Fare moste heartely well in Christ oure Sauiour. At my house in London, the first day of August.

1563.

The firſte Booke of

the Antidotarie conteynynge briefely the ſimples and compoundes anſvvering to all the intentions curatiue required in the arte of chirurgerie, by Thomas Gale, Maiſter in Chirurgerie.

Of medicines repercuſſiue bothe ſimple, and compounde. Chap. i.

MEdicines which doe repell and dryue backe, bee of qualitie colde and ſuche as haue an adſtringent facultie, although they be whote. The vtilitie ſpringinge by the right vſe of theſe is great. For we ſtaye by them the flure of humours in their beginning. Hereof doeth it folowe, that we let the generation of inflammations, apoſtemes, vlcers, feuers, dolour, and payne. Of ſimple medicines repercuſſiue theſe are ſome in moſte vſe. Waters eyther fountayne or diſtilled, Lectiſe, Burſa paſtoris, Myntes, Purſelane, Plantyne, Colewortes, Mormewode, Centaurie, Melilote, Pentaphyllon, Knotgraſſe, Houſelæke bothe great and leſſe: the leaues & toppes of Bramble tree, the Myrtle tree, Balauſtium, Galla

omphacitis, omphacium, **Vineger, wylde Apples, and Peares, Medlers, Seruise tree and fruite, Alume,** atramentum sutoriũ, cerusa, Litharge, acatia, bolus armena, terra sigillate, Hypocisthis, aloes, amonum, agaricke, Calcanthum, Crocus, Coral, Hęmatites, Ladanum, Myrrha, Chrysocolla, Cadmia, Cinabaris, Sanguis draconis, Spodium, Tragacantha, **the Oke, Cypresse leaues, and Myntes, Mandrage apples, Iuse, Henbaine, Popie, whytes of Egges, and suche lyke. Among compoundes these are numbred whiche doe dryue backe and staye the flure of humours. Dyle of Roses, Cataplasmes made with the iuse of these herbes, and with floure. Also cerotes,** as cerotum è Psyllio, ceratum rosaceum, ceratum myrtinum, diacalcitis, oleum rosatum vulgare, oleum rosatum Mesuę, oleum rosatum omphacium, oleum Cydoniorum Mesuę, vnguentum santallium Mesuę, hydreleon Galeni, Cataplasma Guil. Buttes ad phlegmones, vnguentum contra phlegmones & pruritus, vnguentum Pomphologos.

Of medicines attractiue simple and compound. Chap. ii.

Medicines which do drawe & attracte be of whote temperature and subtyle partes, they doe drawe out of the inward parts, as when as anye venemous matter is in the body. Also when splents, bones, scales, thornes, arrowe heades, are fired in any partes, it sucketh oute superfluous moysture in dropsyes, and suche lyke sycknesses. Medicines simple attractiue be, Propolis, Sagapenum, ammoniacum, Opopanax, Galbanum, Euphorbium, Calx viua, aristolochia rotunda, lepidium, Musterd seede, Tithymallus, Pyrethrum, Cantharides. Also stercus columbium, Gallinaceum, anserinum, arietinum, and all suche lyke fymes. Olde oyle, also Turpentyne, Larigna, picea abiectina: and suche like as haue a greate vertue attractiue: Of compounde medicines they vse oyle of Musterd seede, Emplastrum apostolicon Nicholai, Oxycroceum, Emplastrum ex allijs Aetij, and diuers other, whiche you shall fynde in the seconde Booke of the Antidotarie.

Of

Of medicines absterſiue, ſimple and compounde. Chapter. iii.

Such medicines as do mundifie, and cleanſe woũds or filthy vlcers: are called abſterſiues.

Of which ſimple cõmonly vſed be Smalag, Roſes, Plantayne, Scabioule, Nettles, Selondyne, Radix dracontij, Lupines, ariſtolochia longa, & rotunda, Alume, Barley and Beane flower, Flos iris, anagallis, Almones, Sothern wode, Sperage, Aſplemos, Wormewod, Betes, Camepytis, Hartes horne, cortex Capparis, Eleborus albus & niger, Horehound, Parietarie, Valerian, whaye, Honny, Staphiſagre, Nitrũ, the compoũds are Melicratũ, Oxycratũ, Oxymel, Oemel, Prẽcipitatis puluis, vnguentum Egyptiacum noſtrum, veride andromachi, vnguentum apoſtolorum, vnguentum mundificatiuum Magiſtrale, and diuers other lyke.

Of

Of resoluing medicines: Symple and compounde. Chap. iiii.

When as through great fluxis there are humours impacte in anye part, then we vse resoluetiue medicines: the Grækes call them Diaphoretica and they be of whoote and moist temperature. The simples Diaphoretik are these. Whote water, whote wyne, Oyles that be whoote in qualitie, anthemis, Linesede Fenegreke, Myntes, Neppe, Calaminth, Penerial, Netles, Balme, Mugworte, Camomil Malowes, Melilote, Dill, Stichados, Maioram Fumiterry, Worme wode, Enula Campana, Mal worte, Helder, Valerian, Horehounde, Smaleage, Cole wortes, Beane, and Barlye meale, Turpentine, Ladanum, Sagapenum, Galbanum, Opopanax, Bdellium, ammomacū Coliphonium, Myrrhe, Frankensence, and the grese of Geese Capons, Hēnes, Cranes duks, and such lyke. Amonge compoundes specified in the seconde Booke these are numbred. Barbarum emplastrum, Emplastrum ex chalcitide, Triapharmacon, Diachilon album, oyles of elder, Lilies, Dill, Camomille, Oleum Rosatum compositum Mesuę, Oleum Nardinum compositum Mesuę, Emplastrū Henrici octaui, Emplast. Gul. Firmigonis militis.

Of

Of medicines mollificatiue, simple and compound. Chap. v.

MEdicines mollificatiue whiche properlye in Greke are named Malactica, are temperately whote without anye manifest qualitie either of moysture or dryneſſe. We vſe theſe medicines when as we wyll mollifie and make ſoſte bodyes whiche bee ſcirrhous and harde. Of the ſimples which doe mollifie theſe are: all fatneſſe, Butter, Ammoniacum, Bdellium, Atripler, the rootes of Althea, Mare, Colophonie, Fengreke, Cinamome, Saffran, Cypreſſe, Galbanum, Lyneſeede, Laudanum, Lorrell, Lilies, Mallowes, Opopanar, Deſiptus, Piche, Pſyllium, al Reſines, the marrowe of a Harte, a Calfe and Ore, Storax and Prepolis, and Veſcelto.

The chiefeſt compoundes herein vſed, bee Diachylon magnum Meſue, Dialthea cum gummis Nicholai, Emplaſtrum de Melliloto meſuę, Diamelilotou Andromachi ex Galeno, Emplaſtrum ex allijs Aetij, Diachalceteos Galeni, Dia chylon meſuę primę deſcriptionis, Ceratum è ſtyrace, Ceratum gratia Dei, and ſuche lyke ſet out in the ſeconde Booke.

Of

Of medicines which do suppurate, simple and compounde. Cap. vi.

When as all hope is paste by other medicines, then we take those in vse whyche doe suppurate. And note that generallye the great inflamations for the mooze parte doe induce payne, and palsatiue dolour, and come at length to suppuration. The simples whiche do suppurate for the mooze parte, are Althea, Branckursine, Arungia, Butter, Calues talow, Saffran, Ware, Ammomũ, Fengreke, Wheate, Barley, Cocle flower, the rootes of Bzionie, whyte Lilie heades, Ladanum, Lyne seede, Mastiche, Oelypus, Piche, Frankensence, Rosyne, Styzar, Figges, Stichados, Smyznium. Of compoundes which be of fozse in this case: are Picatum ceratum, tetrapharmacon, Basilicon, viride Andromachi, Pastillus Musiç, Emplastrũ ex fremẽto Democrati, and diuers other which neede no rehearsall.

Of

Of medicines caustick. Chap. vii.

Caustick medicynes which doe remoue, and take awaye fylthines in vlcers, and superfluous flesh, are precipitate, sublimate, alome, es Viride, Calchanthum, Sandaracha, arsenicum, Puluis noster secretus, Vnguentū egyptiacum, Vnguentum apostolicon Vigonis, Pastillus Andronius, Pastillus Polyidę, pastillus de Minio Ioannis de vigo, Ceratū Viride Iamerici, aqua corrodens, aqua mercurialis. and dyuers other which were superfluous to rehearse: seing they are readelye founde in the seconde Booke: or els in the table belonginge to the whole workes. And that I haue here in thys place remembred the cheefe and principall Caustick medicynes, whyche are moste in vse in these our dayes.

Of

Of medicynes which do aſwage dolour and payne: bothe ſymple, and compounde. Chap. viii.

MEdicines whych do ceaſe dolour and pain (called in græke Anodyna) be vill, wormwoode, Gladine, Agarike, Cardamone, Chamomille, Centaurie, Chamępitis, Eringium Daucus, Iris, Perſely, Roſemarie, Iuniper, Milium, Opopanax, Althęa, Revv, Serpillum, Lyneſeede, Hyoſciamus, Fygges, Caſtorium, Cardamome, Agallochum, Atriplex, Serpillum, Fengreke, Peucidanū, the white of egges, & ſuch like. Among compoũdes theſe are in vſe, butter, oile of roſes; Violettes, Nenuphar, Popye, Lettiſe, Purſulane, Oleum, Maſtichinum Meſuę, Oleum Populium Nicholai, Oleum Hyperici Magiſtrale, Oleum Mandragorę Nicholai, Oleum Lumbricorum, Vnguentum infrigidans Galeni, Ceratum Oxycroceum Nicholai, Emplaſtrum de Speciebus, Cataplaſma D. Gul. Buttes ad dolorē ſedandum. And ſuch lyke.

Of medicines incarnatiue: Simple and compound. Chap. ix.

MEdicines incarnatiue, which doe alſo ingender fleſhe: are Ariſtolochia rotunda, Frankenſence, Ladanum, Aloes, Cadmia Iota, Pompholix, Amylon, Manna, Mirrhe Storax, Spodium, Turpentine, Colophonia Chryſocolla, Piche, Chriſtallus, Oeſypus. Of compoundes they vſe Viride Galeni, theriaca, Aureum Meſue, Fuſcum Nicholai, Tetrapharmacon, Dia Irios, Puluis Raſis, Vnguentum Baſilicon Meſue, Ceratum Viride Iamarici, Vnguentum incarnatiuum Brunſuicenſis. And dyuers other ſet oute both in the Enchiridion in their proper places, and alſo in this ſeconde Booke.

Of

Of medicines which doe cicatrize, symple and compound. Chap. x.

MEdicines which are to be vsed to cicatrize an vlcer, when as it is fylled with fleeshe are these, Aloes, bolus armena, Alome, Aristolochia, amilum, balaustia, bdellium, anagallis, Centory, Camepitis, Chamedris, cadmia Eupatorium, es vstum, acatia gentian, Gipsum, Iris illirica, Licium, Lupines, Mell coctum, Myrtius, Myrrhe, Lithargyrum, Plantain, Pentaphillon, Paper combust, Sanguis Draconis, Sarcocolla, stymmi, Sandaracha, terra Lemnia, Symphiton maius, the leaues of elder, Frankensens, Tormentyll, Maruayne, Ceruse, Cupresse galles, tutia, and such like. The compoũdes are Dia cadmia, Dia ladani, Vnguentum album Rasis, album è Ceruſa, Vnguentum Pompholigos, Puluis Epuloticus, Vnguentum Nicholai, beyng the seuenth vnguent set out in the seconde booke. Diapipereos Galeni, Dia Dictamu Eiusdem, Emplastrum Calisiense, Emplastrũ Gul. Firmigonis: Militis, Ceratum Viride Iamerici, Vnguentum desiccatiuum rubrum: and dyuers other. &c.

Of medicines Conglutinatiue, ſymple and compounde.

MEdicines conglutinatiue, ſymple be: elder Walwoꝛte, Syderites, Symphitum, plantaine, Anagallis, androſemon, copvvebbes, Lana Succida, new cheſe Iſatis, Myrrhe, Sarcocolle Aloes, Barlie combuſt, Pich, Roſen, & gumme arabicke. Of compounde they vſe, artificiall Balmes, amonge whiche that whych is ſet out in the ſeconde Booke after oure inuention is ryght excellent and of great vertue. Barbarum emplaſtrū Galeni, & vnguentum é vermibus, Oxeleum Galeni, Oeneleum, Ceratum viride Macherionis ex Galeno. And dyuers other of whiche I nede not to make a vayne and ſuperfluous reherſal.

FINIS.

The seconde booke of

the Antidotarie, Contayning the medicynes compounde: and their waye of composition, with theyr vertues and properties. by Thomas Gale Mayster in Chirurgerye.

IN the former booke (louynge Reader) of thys Antidotarye I haue set oute breefelye and eke compendiouslie, such medicines simple and compounde as are required in the curatiue intentions of Chirurgerye: nowe I thynke good in this seconde booke, to declare the compositions of all such cõpoundes as are there remembred, and be of most price in the arte. Unto whiche I haue also added no smal number of vnguents oyles, Balmes, Emplasters, Cerotes, wounde drynke, &c, of myne owne inuention. And here note, that there is difference betwyxt the grecians, and the later writers, touchinge the names of these compound medicynes. For the Grecians dyd call vnguentes onely aromatick oyles, wherewyth they dyd annoynt the body. The Cerotes they called suche medicynes as receyued into their composition oyle and ware. Emplasters be medicynes whyche take into their composition dyuers kyndes of symples,

but chefelye metallyen bodyes and these are so longe to be boyled together, vntill they wyll no longer defyle, and cliue to the handes. Catapla-smes, be medicines standing on herbes, flowres oiles, wheat, barly, ote, beane and other flower. Which are not so long to be boyled on the fyre, as emplasters are. Trochisce, be compositions made rounde and were deuised to keepe longe tyme such symples in their force which do enter in other compositions. Pouders be medicynes beaten and made subtile and fyne lyke mootes of the sonne, as they call them. Waters are prepared diuers wayes by the arte of Alchimie. Decoctions, lotions, and iniections, be liquors and other thynges boyled together and then strayned. What quantitie of euerye symple should be admitted to euerye forme of composi-tion can not in generall rules be set onte, but doth varye accordynge to the curatiue intenti-ons. Perticuler formes of compoundes suche as be of moste price, and vsed: shall folowe in thys seconde booke: as also there way to make them, and to what vse they serue: begynnynge fyrst wyth vnguentes.

The

The diſcription of an vnguent calied Infrigidans Galeni.

Rec. Olei roſati omphacini i.pounde.
Ceræ albæ iii.vnces.

You ſhall melte the Ware in the Oyle, then waſhe it often with colde water, vntill it commeth to white colour. Laſt of all waſhe it w̄ water of roſes & put to it a litle p̄portiō of venegre. It is good to refrigerate hote burning feuers, and the heate of the liuer. It aſwageth the pain in the head. It muſt be anoynted vpon the rigge bone or ſpine of the back, vpon the temples, and on the region of the liuer.

Vnguentum ad ambuſta

Rec. Olei roſati viii.vnces.
Olei ex ouis ii.vnces.
Nitri albi puluer. ii.vnces.
Ceræ albæ i.vnce and a halfe.
Corticis mediani Sambuci M,i,

Make herof an vnguent wyth a ſoft fyre accordyng to arte.

It is very precious in burnings and scaldings and lyke affectes.

Vnguentum de Artanita Maius Mesuę

Rec.	Olei irini	ij.pounde.
	Succi Ciclaminis	iij pounde.
	Cucumeris agrestis	j.pounde.
	Butyri	j.pounde.
	Pulpæ colocintludis.	iiij.vnces.
	Polipodij	vj.vnces.
	Euphorbij	halfe a vnce.

Bruise those that are to be bruised & let them be infused in a vessell of glasse wyth the iuyces and oiles eight daies: then make them whote in vase duplici and strain them, then adde.

Sagapeni	vij dragmes and a halfe.
Myrrhe	iij.dragmes.

These must be dissolued in veneger and boile all in the decoction afore sayde vntyll the iuyces be consumed, then adde to it.

Ceræ	v.vnces.
Fellis vaccini	vij.dragmes & a halfe.

Make

Make al so whote that the ware maye melte: after put into it by lyttle and lyttle the pouder folowynge.

Scammonij Aloes Colocinthidis Mezerei Turbith	ana .vij. Dragmes and a halfe,
Salis gemmæ	iiij.dragmes & a halfe.
Euphorbij Piperis longi Zingeberis, Chamæmeli	ana.iij.dragmes.

Miſce et fiat Vnguentum.

It prouoketh vomit being annoynted on the ſtomacke, but on the nauyll it maketh the belye loſe. So that it is good againſte dropſies, for that it doeth much erpell ſeroſe humors, it doth alſo kyll wormes. And is vſed in ſuche bodies as are not able to take anye purgien medicines inwardly.

Vnguentum Roſarum Meſuæ.

Rec. Axungiæ porcinæ.j.pound.

Washe it. ix. or. x. times in hote water and as often in colde. Then you shal adde to it.

Rosarum rubrarum recentium. j. pounde.

Macerate them and let them stand together seuen dayes, after boile them with a softe fyre. Then strayne them. After put so many newe Roses and doe as you dyd wyth the first. Then take so many more newe and so the fourth time doynge alwayes as wyth the fyrste Roses. Then adde.

Succi rosarum rubrarum vi. vnces.
Olei amygdalarum dulcium. v. vnces.

Boyle all on a softe fyre vnto the consumption of the Iuyce of Roses, then strayne them and reserue it to that vse.

Alij addunt opij. i, dragme.

It ceaseth inflammations, Herpes, and erysipelas and is good against the head ache cõming of heate. It doeth aswage the whote distemperaunce of the stomacke and lyuer.

Vnguentum album auicennæ,
Vnguentum de ceruſa dictum,

Rec.

Rec. Lithargyri j.dragme.
Ceruſę v,dragmes.
Cerę albæ vij.dragmes.
Olei Roſati ij.vnces.
Albuminis ouorum numero.j.

The ware being molten in the oile with a ſoft fire put in your litarge and Ceruſe well beaten and ſerſed. Myre theſe, and laſt of all you ſhall put in the whyte of the egge.

This vnguent is good againſte adustion, ſcabbes, and vlcers.

Vnguentum de Tutia Magiſtrale.

Rec. Olei Roſati, } ana.vj.vnces.
Olei omphacini }
Olei Myrtini, } ana.ij.vnces.
Vnguenti populei, }
Foliorum Plantaginis, } ana.M.ij.
Solani, }

The herbes being well cut and broſed, mire them wyth the oyles, letting them macerate together.viij.dayes. Then boyle them a litle and ſtrain them. Which done, you ſhal adde of.

Ceræ

Ceræ albæ iiij. vnces and a halfe.

Boyle them vntyll the ware be molten, sturryng it wyth a syse. And take it from the fire addyng to it of.

Lithargyri vi. vnces.
Pompholigos siue tutię preparatæ,
Ceruſæ tritæ, ana ij. vnces.
Plumbi vſti vj. vnces.
Caphuræ j. vnce.

Put all in a leaden morter and let it be stirred two houres continually, after put it into a vessel of glasse. And reserue it to thy vse.

Alind simile, Nicolai

Rec. Olei roſati } ana. vj. dragmes.
Ceræ albę }
Succi ſolani j. dragme
Ceruſæ lotæ ij. dragmes.
Plumbi vſti et loti, } ana. j. dragme
Tutiæ præparatæ }
Thuris halfe a dragme.

Melte the ware in the Oyle wyth a softe fyre then put them in a leaden morter and put the powders into them, continually sturring them.

And

And then put to the iuyces of the herbes stur ring still for the space of syre howres.

These .ij. vnguentes are excellent in excicating cricipelas, filthy vlcers, also for vlcers of the legges, and doe fyll the holowe and empty partes, it dothe further more refrigerate and cicatrise.

Vnguentum de lythargirio,

Rec.	Lithargyri.	ij. vnces.
	Cerusę	halfe a vnce.
	Aceti	j. vnce.
	Olei Rosati	quantum sufficit.

Make these in an vnguent wyth a softe fyre. It cureth vlcers and excoriations made through rydynge, straytnes of the shoe, or other wyse happenyng.

Tripharmacum eiusdem Mesuæ,

Rec.	Lithargyri Aceti fortis	} ana, iij. vnces.
	Olei communis.	vj. vnces.

Let the Litharge be finely poudred and put to it the Oyle and Vyneygre and sturre them continually.

It is of the lyke vertue wyth the vnguent going

going before for it healeth scabbes, and vlcers of the skinne, and such like.

Vnguentum ad Scabiem.

Rec. styracis liquidæ,
Terebinthinæ lotæ,
Butyri loti, } ana. ij. vnces.
Succi limonum j. vnce and a halfe.
Hellebori nigri puluerisati, j. vnce.
Salis. ij. vnces.

Mixe them together and make thereof an vnguent according to arte.

It hath like vertues wt ỹ vngeuent going before

Vnguentum de Minio.

Rec. Minij læuissime triti ij. vnces.
Olei Rosati
Olei Myrtini, } anà, ij. vnces.
Coquantur lento igni cum.
Ceræ albæ. halfe a vnce.

Make an vnguent therof according to art.

Aliud de Minio camphoratum,

Rec. Minij triti iij. vnces,
Lithargyri, ij. vnces.
Cerusæ, j. vnce and a halfe.
Tutiæ,
Camphoræ } ana. iij. dragmes.

Olei roſati j.pounde and a halfe.
Ceræ albæ ij.vnces.

The ware being molten in the oile vpon a ſoft and gentle fire, put it in a leaden morter & put the other ſymples mave in moſt fyne pouder into it and ſturre them continually.

This vnguent is good againſt old & maligne vlcers, and ſuch as wil hardly be cured. &c.

Tetrapharmacon Galeni.

Rec. Picis nigræ,
Reſinæ,
Ceræ,
Adipis vaccini, } ana.q.ſ.
Fiat vnguentum.

It doth heate & make moiſt the part to which it is aplied, it ceaſeth dolour, & doth ſuppurate, & make mater or ſanies. Wherfore it is right good for to bring apoſtemes to ſuppuration.

Vnguentum Baſilicon minus Meſuæ.

Rec. Ceræ flauæ
Reſinæ pinguis } ana.j. pounde.
Picis grecę,
Olei communis quantum ſufficit
Fit vnguentum lento igni,

Deme

Some put turpentine to it, some in the place of it doe put piche.

Thys Unguent aunswereth to the vertues of Basilicō minns but it is moze weake. Wher foze it is moze apte foz greene woundes of the heade and neruous partes and vlcers.

Vnguentum Basilicon maius Mesuæ Galeni Enneapharmacum est.

Rec, Ceræ albæ,
Resinę pini,
Sepi Vaccini,
Picis græcæ,
Picis nigræ,
Terebinthinę,
Thuris,
Myrrhæ
} ana.j.vnce.
Olei communis.s.q.
Fiat vnguentum.

Such vlcers as be wyth oute inflammation in the neruons and sinowye partes thys Unguent fylleth wyth flesche and incarnateth verye well.

Unguentū

Vnguentum fuſcum Nicolai.

Rec. Olei, one pounde and a halfe.
Ceræ nouæ, iiij. vnce.
Picis Grecæ, } ana. ij. vnce.
Picis nigræ, }
Maſtiches, }
Galbani, } ana. j. vnce.
Thuris, }
Sagapeni ij. vnce.
Terebinthinæ, j. vnce.
Fiat vnguentum.

This vnguent hath a power and vertue of healing and attracting.

Vnguentum capitale Conciliatoris.

Rec. Gummi eleni, iij. vnce.
Hammoniaci, ij. vnce.
Terebinthinæ, } ana. iij. vnce. & a halfe.
Reſinę pini, }
Ceræ, quantum ſufficit.

Make of this an vnguent . And let the gummes bee dissolued according to arte, and so longe boyled vntyll they come almoste to the forme of a Cerote.

Vnguentum è Caprifolio Carpi.

Rec. Terebinthinæ, Resinæ pini, Ceræ nouæ, } ana. iiij. vnce.
Olei rosati, viij. vnce,
Mastiches, Thuris, } ana. j. vnce
Gummi eleni, ij. vnce.
Caprifolij, Betonicę, } ana. iij. vnce.
Vini optimi, tenne pounde.

The Woodbyndes and Betonye beynge stamped, let them stande infused in Wyne foure and twentye houres. Then adde to them all the other percelles, excepte the Gummes, Frankensence and Mastick, boyle these on a cleare fyre vntyll the halfe parte of the Wyne be consumed, and that it begynneth to ware greene, then strayne it, and let it coole. Then boyle it agayne vntyll all the Wyne bee consumed

lumed, then strayne it agayne, and then boyle it, and adde the reste of the percelles in fyne Pouder. And then put it in a colde place, and reserue it to thy vse.

Thys is a ryght excellent medicine in woundes of the head.

Vnguentum è Calce magistrale,

Thou shalte euerye daye ons washe the Chalke, and let the water bee taken away wyth a Sponge, bee this tenne dayes. Then washe it wyth Rose water, and let it dryye, and then

Rec. Huius calcis ita extinctæ,	three vnce,
Olei rosati,	one pounde
Ceræ albæ,	thre vnce.

Melte the Ware in the Dyle, then takynge it from the fyre, put the Chalke made in moste fyne Pouder, vnto the Dyle and Ware, and make an vnguent of them accordyng to arte. Thys vnguente is good for burnynges and scaldynges.

Vnguentum populeon Nicolai,

Rec. Oculorum Populi arboris recentium menſe Martio collectorum. a pounde and a halfe.
Axungię porcinę prępartæ. iiij. poũd.

The Pople buddes muſte bee brouſed, and mired with your Arungia vntyll your other herbes maye be prepared, then adde to it,

Folio-rum. { Papaueris agreſtis, Mandragoræ, Hyoſcyami, Solani, vermicularis aut craſſulę, Lactuæ, Semperuiui, Bardanæ, Portulacæ, Violariæ, Vmbilici Veneris, } ana. iij. vncc.

The herbes muſt be mired and tempered with Arungia, then take of Wyne a ſufficient quantitie: Boyle them to the conſumption of the wyne, then ſtrayne them and make of them an vnguent accordyng to art.

It is merueylous precious agaynſt ragynge

beate

heate in Feuers, and it prouoketh slepe, the temples beynge annoynted with it. &c.

Vnguentum Dialthea simplex Nicolai.

Rec. Radicis altheæ,		tvvo pounde.
Seminis Lini,	} ana. j. pounde.	
Fœnogræci,		
Olei,		foure pounde.
Ceræ,		j. pounde.
Terebinthinæ,		tvvo vnce,
Resinæ,		vj. vnces.

Let the rootes bee cutte and brouſed with the ſeedes, and ſtande three dayes in eyghte Pintes of water: then boyle them and take two pounde of the Muſilage and boyle it with the other thynges vntyll all that is waterye bee conſumed. And make thereof an vnguent accordyng to arte.

This vnguent doeth molifie, heate, and make moyſte.

Vnguentum Dialthæa cum Gummis Nicolai.

Rec. Radicum altheę, ij. pounde.

Seminis Lini, Fœnogræci,	ana. one pounde,
Pulpæ ſcillæ,	vj. vnce.
Olei,	foure pounde
Ceræ,	one pounde
Terebinthinæ,	two vnce,
Reſinæ, Picis Grecæ,	ana. vj. vnce.

Make an vnguent as is afore ſayde, then adde to the Gummes folowynge, firſt beynge diſſolued in Vinegre.

Galbani, Gummi Hederę,	ana. two vnce.

Wire them well, and reſerue it to thy vſe.

This vnguent properlye helpeth the payne of the Breſte commynge of colde, and the Palu-riſie, and healeth all partes of the Breſtes, whiche are refrigerated, it doeth moyſten, mo-liſie, and make whote.

Vnguentum Santalinum Meſuæ.

Rec. Rosarum rubearum, one vnce,
Sandali rubri, j.vnce. ij.dragmes
Sandali citrini, } ana.vj.dragmes.
Sandali albi, }
Spodij, halfe an vnce.
Caphuræ, ij.dragmes
Ceræ albæ, iii.vnce. vi.dragmes.
Olei Rosati, j. pounde,
Boli armeni, vij.dragmes.

You shall melte the Ware in the Dyle, and washe it often tymes with colde water, after that all your other percelles beynge made in fyne pouder, you shall put them together, and make a fyne vnguent accordynge to art.

It doeth extinguishe and putte awaye all inflammations of the lyuer and stomacke, and other partes of the bodye.

Defensiuum magistrale.

Rec. Boli armeni, } ana. i.vnce
Sanguinis draconis, }
Terræ sigillatæ, }

Olei Rosati	vi.vnces.
Ceræ	j.vnce and a halfe.
Aceti	iiij.vnces.

Boyle the oyle, Veneyger, and ware togethee vntyll the Veneygre be consumed. Then takynge it from the fyre when as it begynne to refrigerate and ware colde, putte to your other percelles made in fyne pouder and reserue is to thy vse.

Mundificatiuum, magistrale.

Rec.	Mellis Rosati colati	i.vnce & a halfe.
	Terebinthinæ claræ	iij.vnces.
Succi	Apij, Prasij }	ana.syxe dragmes.
Succi absinthij		ij.dragmes.

Simul coquantur, deinde addentur.

Farinæ	Hordei, Fabarum }	ana.vj.dragmes.
	Lupinorum, Orobi }	ana.iij.dragmes.

Sarcocolle

Sarcocollę
Myrrhę } ana.j.dragme and a halfe.

Bryng them into pouder and make an Unguent accordinge to arte. And this Unguent is right excellent to mundyfie a wonnde or fylthye vlcer, and thereof it is called mundificatiuum magistrale.

Vnguentum viride Andromachi ex Galeno.

Rec. Resinæ Pini ij.pounde.
Ceræ j.pounde and a halfe.
Olei communis viij.vnces.
Aeruginis æris iij.vnces.

You shall put the Rosen and ware into the oyle and melt them together, then put to your Erugoeris made in fine pouder, & make thereof an vnguent as art requireth. It healeth greene and freshe woundes and such lyke, &c.

Vnguentum apostolorum Auicennæ,

Rec.

Rec. Ceræ albæ
Terebinthinæ
Resinæ,
Hammoniaci } ana. xiiij. dragmes.

Aristolochiæ longæ
Thuris
Bdellij } ana, vi dragmes

Myrrhe,
Galbani, } ana fovver dragmes,

Lithargyri viij, dragmes

Opopanacis
Aeruginis } ana, ij, dragmes

Olei communis ij, pounde
Hyeme verò iij, pounde

You shall dissolue your Gummes in good white vineger, then put them to your oyle ware Rosen, Turpentine, and Litharge, and boile them on the fyre vnto the consumption of the venegre. After warde the other percelles being made in fyne pouder you shall also adde: and make an vnguent accordyng to arte.

It is of greate force agaynste woundes and vlcers whyche are harde to be cured: also for fistulas, it taketh awaye deade fleeshe and restoreth

reſtoreth in the place ſounde and newe. It doeth molifie and heale. &c.

Vnguentum Aegyptiacum Meſuę.

Rec.	Aeruginis,	fyue dragmes.
	Mellis,	fouretene dragmes,
	Aceti albi,	ſeuen dragmes,

Boyle theſe on the fyer, and ſtyre them ſo longe vntyll it be Redde. Other take of thys vnguent, ſixe vnce.

	Calcanthi vſti,	ij. vnce.
	Olei roſati,	iij. vnce.
	Cerę,	quantum ſufficit.

Make all in an vnguent accordyng to arte. This is ryghte good agaynſt olde woundes, Fiſtulas, and alſo it taketh awaye ſuperfluous fleſhe, and doth vehemently excicate & drie.

Aliud Ioannis de Vigo.

Rec.	Aquę plantaginis,	ana. ij. vnce.
	Vini malorū gran.	
	Mellis,	

Alumi-

Aluminis rupis,
Aeruginis, } ana. x. dragmes.

Boyle these together, and styre them so longe vntyll that it ware redde, then reserue it to thy vse.

It serueth to the lyke effectes as the other before.

Aliud Guidonis.

Rec. Mellis, one pounde.
Aceti optimi, sixe vnces.
Aeruginis, one vnce.
Aluminis rupis, fiue dragmes.

Boyle and styre them so longe together vntyll they ware redde. Then let it coole, and keepe it to thy vse.

Vnguentum defensiuum & repercussiuum Brunsvvicensis.

Rec. Olei rosacei, iiij. vnce.
Boli armeni, ii. vnce.

Terra

Terræ ſigillatæ, Fœnogręci,	}	ana. j. vnce.
Caphuræ,		j. dragme
Solatri, Semperuiui,	}	ana. j. M.
Cerę,		tvvo vnce,

Bruiſe the herbes and ſtrayne them, and put them to the other thynges: and make of all an vnguent accordyng to arte.

This vnguent is vſed to defende woundes from accidentes. Alſo in the begynnynge of inflammations, to ceaſe or rather let the flure of humours.

Vnguentum incarnatiuum eiuſdem.

Rec.	Terebinthinæ,		iiij. vnce.
	Mellis,		halfe an vnce.
	Olibani,		one dragme.
	Croci,		one ſcruple.
	Olei roſacei, Ceræ,	}	quantum ſufficit.

Make hereof an vnguent accordyng to art.

It is a ryght good incarnatiue, prouokynge and cauſynge fleſhe to growe in all maner of woundes. &c.

An

Vnguentum ad phlegmones & pruritus.

Rec. Olei rosati three vnces.
Infrigidantis Galeni
Vnguenti rosarum } ana j. vnce
Populionis
Succi plangtaginis,
Semperuiui } ana half a vnce
Vini granatornm
Aceti rosarum ij, dragmes,
Lithargyri auri
Argenti } ana, j vnce & a halfe
Ceruſæ fyue dragmes,
Tutiæ one dragme

Put the oyle the iuyces veneger and wyne in to a morter of lead, and labour them well, and put thereto the meneralls in fyne pouder, and when they are well wrought, put thereto the vnguentes and worke them all together and so make your vnguent.

This vnguent is for iche of the leggs and inflamation, excoriation, burning and blisteringe, cominnge of whote humours, and for whote and sharpe vlcerations. &c.

Unguentum

Vnguentum Phomphligos,

Rec.	Olei rosati	tenne vnces.
	Ceræ albæ	three vnces.
	Succi Solatri	viij, vnces,
	Cerusæ lotæ	thre vnces,
	Plumbi vsti, Tutiæ	ana ii, vnces
	Thuris,	i, vnce

Boile the iuyce of nightshad wyth the oyle, tyll the iuyce be consumed, then put to the wax, and when it is relented, and set from the fier so that it be neare colde, put thereto the Ceruse, brunt leade, Tutia, and Thus made in fyne pouder, and searsed through a fine searce, sturre them well together and keepe them in a tinne pot. &c.

This vnguent is not onely good in dryng vp of vlcerations of the legges and other places of the body, but it is also an excellent remedye, to preserue a canker vlcerat, that it go no further, and also a singuler good remedye, for all other Canserous vlcerations, both in the brest and in all other places of the body.

Unguentum

Vnguentum Nicolai Florentini.

A ſpeciall vnguent for the crampe, if the Pacient haue no Feuer, it was practiſed by Nicholas Florentine.

TAke a fatte Goſe, and take out her bowels then take a Catte and cutte her in ſmale peeces, and put the ſame peeces into the bellye of the Gooſe, with ſmale peeces of Bacon, Myrrhe and Frankenſence mingled all together, then ſowe vp the bellye of the Gooſe, and put her on a ſpytte, and roſte her at a ſofte fyer. Set a dripping panne vnder her with Vineger and whyte Wyne, and when the water of the Gooſe is dropped awaye, then let the fatte droppe into the Vineger and the Wyne. After take the fatte that ſwymmeth aboue the Vineger and Wyne, and keepe it in a veſſell, and boyle the Gooſe agayne in the foreſayde Vineger and Wyne, and much fatte wyll come from her agayne, and then take thys fatte and mixe it with the firſt, that dropped from her. And wyth this vnguent annoynt the member whiche hath the crampe, for it is very precious, and hath vertue to ſeace payne, to waſte, conſume, and drye vp euyll humours,

and

and to comforte the members, if some of thys vnguent, be put into the vnguent, vsed in Chamæleontiasi, it helpeth very much, & doth ease the paine of that contagious sickenes.

Vnguentum Ioannis de vigo Contra Chamæleontiasin.

Rec.	Olei spici	one vnce.
	Vnguenti pro spasmo	two vnces.
	Axungię porcinę	iiij. vnces.
	Olibani	halfe a vnce.
	Euforbij	one dragme and a halfe.
	Vnguentū de althea }	ana. j. vnce.
	Vnguentū Agrippæ }	
	Argenti Viui	iiij. vnces.

LEt all these be beaten to gether in a morter of Iron or stone tyll no parte of the Argent Viue, be seene, but see thou mortifye the same fyrste in a little glasse wyth Veneyger and fastynge spattell, that it maye the more easelye myngle wyth the fore-

ſayde thynges , and doe leſſe hurte in the worckynge , lette your Olibinum and Euphorbium be made in fyne Pouder , and ſearſed fyne before you myxe them with the forſayde thynges . Prouided alwayes that the matter antecedent be dygeſted , and ſufficientlye purged , before they laye thys vnguent on the bodye.

Aliud Vnguentum pro eadem Chameleontiaſi.

NOte that this vnguent accordyng as Nicholas Maſſa , and other notable writers both olde and newe dothe teſtifye , it doth heale not onely the paynes of that ſame contagious ſycknes, but alſo the breaking oute of thoſe that be ſcabed , it reſolueth harde Apoſtemes which is called grumas , bunches , or harde knots of the ſinewes of the armes and of other places , alſo it healeth vlcers of euyll curation or harde to be cured . Thys vnguent muſt be applyed vppon the legges, the armes, and vppon the ioyntes, cheſtye in the hammes in the bowynge of the armes , the wreſte of the handes , the wreſte of the foote , and the ſooles of the feete . Alſo you muſt annoynt the

the ſoores therewythall, but beware ye laye not thys vnguent nie the principall partes: as the breaſte and the ſtomacke, but you maye annoynte the ſhulder blades the buttockes wyth it, and yf nede be ye maye laye a lyttle on the foreheade and thys is the makynge of it.

Rec. Axungiæ porcinę **the lyttle ſkynnes taken from it withoute meltyng of the fyre. ii. pounde.**

Argenti viui	ij. pounde
Litargyri	iij. pounde.
Ceruſæ	iij. vnces.
Olibani	j. vnce.

Fyre all theſe together and make thereof an vnguent, in a morter, but fyrſte of all you muſte beate the ſwynes greaſe and the Argent viue together verye ſtronglye, then put in the other thynges in fyne pouder, and labour it well wyth your peſtell vntill it be ſo fine that none of the Argentum viuum be ſeene.

Note that thys vnguent is the cheſe matter of all the curation of thys deſeaſe, for becauſe you maye myxe other medicynes, wyth thys medicyne accordynge to the diuerſytie of the ſickenes that the pacient hathe: as an exam-ple. If the ſyckenes came wyth harde ſwel-lynge, adde Capons greaſe, Duckes greaſe or Gouſe greaſe, and ſometyme you maye adde all theſe thynges, and ſometyme one, as you ſee cauſe, for wyth their whotenes and moyſtenes they doe reſolue the hardnes, and ſo comforte the hurte member, and yf it chaunce that there be ſwellynge wyth great payne, you maye adde Dyle of Lilyes, of Bayes, of Dyll, and Turpentyne, ether one of them, or moo as ye ſee cauſe, for they be ſtronger in operation, and their vertue is greate. And yf the deſeaſe be ma-lygne or Vlrulent, that the Paciente maye not be altered or holpen wyth a lyghte me-dcyne, put in more of the Argentum Viuum, & adde thervnto Aqua vitę, Sage, Stichados, trea-cle, Myrrhe and Maſticke. It is to be feared of ercoriacion that may come, by the ſtrength and Corroſion of the Argentum Vinum. Therefore we correcte thys vnguente wyth Lithargyri and Ceruſa, as we haue wry-ten here before in thys vnguent. And as

you

you doe fynde dyuers thynges added vnto thys Unguent , So dothe it remoue diuers accidentes and ſyckneſſes . But beware you mynyſter not thys vnguent wythoute deſcretion , for euen as it dothe helpe thys contagious diſeaſe beynge ryghtlye vſed : So beynge vſed wythoute diſcretion it dothe kyll and deſtroye.

Prouided alwaye that thys be not mynyſtred wythoute purgation and digeſtion of the matter antecedent . The Pacyente maye not goe abroade after hys ſwettynge vntyll ſuche tyme as his mouthe be hole , and muſte vſe good lotions , or walshynges for hys mouth vntyll it be hole.

Tertium vnguentum pro Chamęleontiaſi.

Rec, Laureolę
Abſynthij
Fumarię
Centaurij. } ana.M.ſ.

Euphorbij
Elebori albi. } ana.iij . dragmes.

Colocinthidis. ij.dragmes.

Boyle your Herbes, your Pouder and Coloquintida altogether, your Herbes beynge a lytle brouſed in a morter, and your Coloquintida broken in ſmale peeces in one Quarte of good Maluieſie, tyll the halfe bee conſumed, then lette it ſtande a daye and a nyghte infuſed, and ſtrayne it and adde thereunto,

Succi Rutæ,
Saluiæ,
Ebuli, } ana. ij.vnce.

Then take Axungiæ, xii.vnce.

Ping. Anatis,
Caponis, } ana.iiij.vnce.
Oyle de Bay, vj..vnce.
Lithargyri auri,
Olibani, } ana.ij.vnce.

Maſtiches,

Maſtiches,	}	
Aloes cicatrinæ,	}	ana. halfe an vnce.
Scammoniæ,	}	
Argenti viui,		viii. vnces.

Make all thoſe thynges that are to bee made in pouder: in fyne pouder, and mortifie your argente viue wyth faſtynge ſpatell or wyth iuſe of Lymons. Then beate all your forſayde thynges together, puttynge in youre iuyſe and youre decoction together by lytle and lytle, continuallye labourynge it in a morter vntyll it bee brought to a perfyte vnguent.

This vnguent muſte bee applyed vppon the legges, and armes as other vnguentes bee that ſerueth for the ſame diſeaſe. And yf you wyll haue them more laratiue, annoynt the nayuyll therewyth. It taketh awaye apoſtemes, vlcerations and breakinge oute of the body, and dolour and paynes ſpringing of the ſame ſickneſs.

Aliud vnguentum pro eadem Chamęleontiaſi.

Rec. Maceris,
Cinamomi,
Garyophil } ana. halfe an vnce.
Granorum paradiſi, tvvo dragmes.
Foliorū roſarum rub.
Corticum limonum, } ana. v. dragmes,
Nucum muſc. numero. iiij.

Let all theſe be beaten together and layed in ſteepe in Roſe water, the ſpace of one daye and one nyghte, then put vnto the ſame water and ſpyces, of ſwynes greaſe and newe ſuet, fyue pounde. Boyle them together vntyll the water be conſumed, and ſtrayne it. Than take of that ſame, two pounde.

Argenti viui, ſeuen vnce.
Olibani, tvvo vnce.
Maſticches,
Ceruſæ
Litargyri, } ana. an vnce & a halfe.
Soccha dos,
Myrrhæ, } ana. halfe an vnce,

And

And in the ende put of Muske resolued in oyle of Roses, halfe a Scruple. And let these be mixed together, and make thereof a fyne vnguent accordynge to arte, as is aforesayde. And thys vnguent is for ryche and dilicate personnes, and is also meruelous in operation, and muste bee vsed as these are, whiche serueth for the same infyrmitie.

Vnguentum Agypsiacum.

Rec.	Mellis,	two pounde
	Aceti fortis,	one pounde
	Viridis æris,	foure vnce
	Aluminis,	three vnce

Boyle all these together on a softe fyer, vntyll it bee Redd, for yf you boyle it to muche, it wyll bee Blacke, and yf you boyle it to lytle, it wyll bee Greene. Therefore when it is boyled enoughe, it wyl bee perfitely Redde. This vnguent I haue found great profyte in, to mundifie sores, for it taketh away rotten flesshe wythout anye greate payne, it doeth also profyte muche in Fistulays, and hollowe Vlcers, yf it bee mingled wyth some conuenient lycour, and conueyed in wyth a syringe.

It doth alſo abate & take awaie ſpongious fleſh bothe in woundes and in vlcers, and maketh them come to caſye Cicatrization, and thys vnguent is muche prayſed, bothe of the olde wryters, and of the newe in manye other thynges.

Vnguentum Dealtheæ

Rec. Radicum altheę ij.pounde.
Sem.Lini, Fœnogręci } ana one pounde.
Olei communis iiij.pounde
Ceræ j.pounde.
Terebinthinæ, Galbini } ana.iiij.vnces
Gummi hederę ii.vnces.
Colophonij, Perroſin } ana halfe a pounde.

Waſche your roottes cleane and bruſe them in a morter, and bruſe your Lyne ſeede and Fengreke alſo, and putte therevnto of Scylla, bruſed, halfe a pounde putte vnto all thys, eyghte pintes of water, and let them ſtande three dayes, and the fourth daye boyle them vppon the fyre tyll they begynne to wax thycke. Then put them into a potte and when you wyll ſtraine it, put therevnto ſome whote boyling water, that it maye the better be ſtrained, then take of thys mucylage or ſtraynynge two pounde and a halfe, and put vnto your oyle aforeſayd, and let them boyle to the mucylage be conſumed. Then put therevnto your ware, your Turpentyne your Galbanum and Gumme Edere, deſolued in Veneyger and ſtrayned, then your perroſin molten wyth a lyttle oyle of Lilies, and laſt of al put in your Colophonium in fine powder: continually ſturring al theſe together tyll they be cold and ſo kepe it. This vnguēt called Dealthea, is a ſpeciall remedie for al paines of ỹ breſt, that cōmeth of cold, yf the breſt be therew̄ all anoynted & warme cloeſe laid thervpon. It is good alſo for the plaricie, for it doth reſolue and molifie, which are required in both theſe deſeaſes, it is good alſo for ſhrynkynge of ſynowes and tendones, and alſo for creked ioyntes, for it mollyfieth and ſupplyeth them gentillye

ſo

so that it maketh them easely to stretche further agayne. Many other good properties it hathe in doynge of suche lyke thynges.

Vnguentum desiccatiuum Rubeum.

Rec. Lapidis calaminaris, Terræ sigillatæ Rubeæ } ana. iiij. vnce
Lithargyri auri, Ceruſæ, } ana. thre vnce,
Camphoræ, one dragme,
Ceræ, fyue vnce.
Oleorum roſarum, Violarum. } ana. vi. vnce.

Waſhe your Lapis calaminaris, Litharge, and Ceruſe, and dryе them agayne, and make all theſe in verye fyne pouder, that is to bee made in pouder. Then melte your Oyles wyth your Ware, and in the coolynge put therein your pouders, continuallye ſtyrrynge it wyth a ſplatter vntyll it bee colde, and ſo keepe it to your vſe. Some doe adde vnto thys vnguent, Oyle of Nenupher one vnce, Olibanum,

Olibanum and Mastick ana. one vnce, and yf you so do it is the better.

This vnguent is verye good to drye vp vlcerations, and chefye of the legges after that they be mundified, and the flesshe well incarnat, for other wise it profiteth not, for it serueth for no other purpose, but onelye to drye and to defend humours and to make perfite Cicatrization.

Oleum roſatum.

Rec. Olei communis iiij. pounde.
Roſarū rubrarum purgatarū. xvi. vnces

Waterate them and let them ſtande in the ſunne eyght dates: then take out the Roſes and ſtrayne them. After put in newe Roſes and let them in like maner ſtand eyght dayes & ſtrayne them as afore. And doe ſo the thyrde tyme. And reſerue thys to thy vſe, ſome vſe to let the Roſes remayne in the oyle the laſte tyme.

It doth refrigerat and is aſtringent, and helpeth inflammations in the partes of the body, and it ceaſeth the corroſion of the inteſtines miniſtered in gliſters, and healeth the payne of the teeth, they beyng waſhed therewith.

Oleum Roſatum completum Meſuę.

Rec, Olei ex oleis maturis, aqua fontana multoties loti quantum voles.

Put into this Oyle of redde Rose leaues so many as you shall thinke conuenient, set these in the sunne eight dayes, then boyle them in a duble vessell on the fire three howers. Then strayne them. After take newe Roses, and doe as afore is sayde. And do so also the thyrde tyme. After put to the fourth part of water of the infusion of Roses and let them stande in the sunne. xl. dayes. Then strayne it and agayne put to the iuyce of Roses, and let it stand in the sunne.

It doeth strengthen the partes of the bodye, it resoluеth, and seaceth dolour.

Oleum Rosatum Pauli

Rec. Rosarum exemptis vnguibus iij. vnces.
Olei omphacini vj. vnces.

Put these in a glasse and stoppe them well that they breath not out and let them stande in the sunne. xl. dayes. Other doe not sette the glasse in the sunne but hang the glasse in a wel nere to the water for the space of. xl. dayes.

It doth ertinguishe inflammations, it dothe corroborate, restrayne, and sease flures, it kepeth backe the humours whyche floweth throughe the bodye. &c.

Oleum

Oleum Rosatum omphacinum.

Rec. Olei Oliuarum immaturarum
loti. j.pounde
Rosarū rubrarum purgatarū iiij. vnces.

The roses being bruised and myxed wyth the Oyle put them in a glasse, and do as is afore-saide in the composition of the other oyles. And chaunge your Roses three tymes.

The vertue of this oyle is all one wyth that whych is mencioned before.

Oleum Chamæmelinum Pauli.

Rec. Florum Chamæmeli, demptis Foliis
Albis, iiij, vnces,
Olei oliuarum ij, pounde and a halfe

The flowers must drye in the shadowe. xviij. howers: then put them wyth the Oyle into a glasse wyth a narrowe mouthe beyng well stopped and let it stande in the sunne. xl. dayes.

It is of ryght good effecte in the passions of the ioyntes, & for the the collicke and many other infyrmityes; for it dothe repell and moderatelye digest.

Oleum

Oleum Cydoniorum Meſuæ,

Fiat ex carne cydoniorum præmaturorū cū
cortice. Succi cydoniorū. ana, vi, vnces,
Olei oliuarum immaturarū iii, pounde

Put all in a Glaſſe well ſtopped and lette it ſtande ſyftene dayes in the Sunne. Then boyle it by the ſpace of foure houres on the fyer in a double veſſell. Then ſtrayne it, and preſſe out the iuſe. Then put newe into the Dyle, and ſette into the Sunne, after boyle it, and erpreſſe it as afore, and doe ſo the thyrde tyme, and reſerue it to thy vſe.

It doeth refrigerate and ſtayeth ſlures, and doeth alſo ſtrengthen the bellye and Nerues, beyng applyed vnto them. &c.

Oleum populeon Nicolai,

Rec. Olei, vij. pounde, tvvo vnces,
Vini, iiij, pounde.
Gemmarum Populi arboris recentium, iij, pounde

The Buddes of Pople muſte bee b;ouſed and maccrated in Oyle and Wyne, the ſpace of ſeuen dayes. Then boyle them in a double veſſell vntyll the Wyne bee conſumed: then ſtrayne it, and reſerue it to thy vſe.

It helpeth payne in the head, in the ſoyntes, and is good agaynſt the goute, and where as dolour and payne is. &c.

Oleum Nardinum compoſitum Meſuæ.

Rec. Nardi Indicæ, foure vnce.
Sampſuchi, id eſt, maioranæ, ii. vnce.

Ligni aloes,
Enulæ,
Folij indi,
Calami aromatici,
Foliorum Lauri,
Cyperi,
Schœnanthi,
Cardomomi,
} ana. vnce. j. ſe.

W;ouſe all theſe, and putte to it of,

Vini,

Vini, } ana. q. ſu.
Aquæ, }
Olei loti, vj. pounde,

Let them be macerated twelue houres together. Then boyle them in a double veſſell, and make an Oyle accordyng to arte.

This Oyle doeth heate, attenuate, and digeſt, wherefore it is ryghte good in all colde and wyndye infirmities of the brayne, ſtomacke, Lyuer, Splene, Reynes, Bladder, and Matrice. It doeth alſo cauſe good colour of the bodye. &c.

Oleum Sampſuchinum.

Rec. Foliorum Sampſuchi, id eſt, Maioranæ, M. iiij.
Serpelli, M. ij.
Foliorum Myrti. M. j.
Abrotoni, } ana. M.
Siſymbrij ſeu mẽtę aquaticę, } halfe.
Cacix, two vnces.
Olei omphacini quantum ſufficit.

Cut and bruse the herbes and put them in a glasse & set thys glasse in the sunne eyght daies: Then strayne it, which done put other newe percelles and boyle it agayne and strayne it and doe thys the thyrde tyme.

It helpeth lassitude & werynes and is ryght comfortable in passions of the brayne and nerues. Therefore the spine of the backe beyng annoynted wyth it, it helpeth the Palsey and crampe and is good agaynst the sting of Scorpions. &c.

Oleum hyperici magistrale.

Rec. Olei veteris foure pounde.
Vini albi potentis one pounde.
Florum Hyperici cum semine recentium, M.iiij.

Bruse the flowers and macerate them in the wyne and oyle beyng put in a glasse well stopt two dayes. Then boyle them, strayne them, and put newe flowers to them, this do thryse then put to euerye pynte of this of.

Terebinthiæ

Terebinthinæ	sixe vnces.
Olij absynthij	three vnces.
[illegible],	ana twvo drag-
[illegible],	mes.
Castorei benedicti,	
Nardi Indicæ	
[illegible]	
Calami aromatici	

Lumbricorum in Vino pluries Lotorum, twvo vnces.

Vse all and let them stande in the Sunne fortye dayes . And stoppe the glasse well and receyue it to thy vse.

It hathe the vertues wyth those goynge before . And is of more force in the same infyrmityes. &c.

Oleum Castorei magistrale.

Rec. Castorei,
Styracis calamitæ
Galbanj,
Euphorbij,
Casiæ,
Croci,
Opopanacis,
Carpobalsami,
Spicæ nardi indicæ
Costi,
} ana tvvo drames

Cyperi,
Schœnanthi,
Piperis longi,
Piperis nigri,
Sabinæ,
Pyrethri,
} ana.ij, drames and a half.

Olei, foure pounde.
Vini, tvvo ponnde,

Dissolue the Opopanax and Galbanum in some part of the wyne. Then brouse the other thinges and put them to the oyle and rest of the wyne. And boyle them vntyll the wyne be consumed. Then strayne it and put the Gummes and Wyne in whych they were dissolued to it, and boyle them together vntyll the wyne be consumed and reserue it to thy vse.

It

It is a singuler remedye for al colde passions especially of the ioyntes and neruous partes. It healeth the palsey crampe & rigours in feuers if you anoynt the backe with it. &c.

Oleum Costinum Mesuæ.

Rec. Costi, two vnces.
Casiæ one vnce.
Summitatum sampsuchi, viii. vnces.
Vini quantum sufficit
Olei oliuarum, thre pounde,

Boyle these and macerate them. ij. daies, then boyle them in a duble vessell vntil the consumption of the wyne and reserue it to thy vse. &c.

It openeth obstructions helpeth the sinowye partes muscles tendons and ligamentes. Also the stomacke, and lyuer, and helpeth muche to the increasyng of good colour in the body. &c.

Oleum papauerinum.

Rec. Capitum papaueris, } ana partes æquales.
Foliorum papaueris
Florum papaueris,
Olei quantum sufficit.

Put these in a Glasse, and let them stande seuen dayes in the Sunne, then strayne them, and put newe to the Oyle, thys doe three tymes.

It taketh awaye whote distemperaunce, and paynes and griefe springyng hereof.

Oleum Lumbricorum.

Rec. Lumbricorum terrestrium, halfe a poūd:
Probe lauentur in vino, deinde immittantur in olei rosati omphacini, ij. pound.
Vini, tvvo vnces.

Boyle all in a double vessell vnto the consumption of the wyne, then strayne them, and reserue it to thy vse.

It cureth the colde passions of the Nerues, and is profitable for dolour and payne of the ioyntes, &c.

Oleum Balsami Petri de Ebeno.

Rec.

Rec. Myrrhæ,
Aloes,
Spicæ nardi,
Sanguinis draconis, } ana.ij.dragmes.
Thuris,
Mumiæ,
Opopanacis,
Carpobalſami,
Bdellij,
Hammoniaci,
Sarcocollæ,
Croci, } ana.ij.dragmes.
Maſtiches,
Gummi arabici,
Styracis liquide,
Ladani, } ana.ij.dragmes, & a halfe.
Caſtorei, }
Maſtiches, halfe a dragme.
Terebinthinæ, ad pondus omnium.

Brouſe thoſe that are to bee brouſed, and mire them together, and deſtill them in a glaſſe alembike accordyng to arte.

It is of greate force and ſtrengthe agaynſt thoſe infirmities, whyche ſpryngе of colde cauſes. &c.

Oleum Balsami Brunsvvicensis.

Rec. Ligni aloes, tvvo vnce.
Opopanacis,
Resinæ de Pino,
Bdellij,
Galbani, } ana.iij. vnce.
Ammoniaci,
Mastiches,
Sarcocollæ,
Gummi elemij,
Olibani,
Myrrhæ,
Gummi cupressi, } ana.iij.vnce.
Olei Laurini,
Olei Benedicti,
Laudani,

Carpobalsami,
Xylobalsami, } ana.j.vnce.
Opabalsami,
Sanguinis draconis, halfe an vnce.

Castorij,

Castorij,
Spicæ nardi,
Cububæ,
Maceris,
Cinnamomi,
Grauorū paradisi,
Corticis citri,
} ana.j.dragme.
Olei Terebinthinæ, omnium pondus.

Put all these together, and distill them by a Glasse alimbecke, and reserue it to thy vse.

This is the Banlme wherewyth greene and freshe woundes are spedilye cured and healed, and it hath merueylous vertues as shall appeare to hym that putteth it in practyse.

Balsamum viride nostræ inuentionis.

Rec. Olei Rosarum, one pounde & a halfe.
Put it in a panne, and put thereto

Rorisemarinę,
Capharę,
} ana.iij.vnce.

Let

Let them be brosed before you put them in, then take.

Malicorij j. vnce and a halfe.
Ligni vitę tvvo vnces.

Beynge made in fyne Pouder then boyle all these together the space of an howre, straine them and put to the streanyng.

Terebinthinæ i. pounde.
Aquæ vitę iiii. times stilled, one pound put into your aqua vite.
Aloes Cicotrinæ, i. vnce.
Rubarbaræ, i. vnce and a halfe.

Let these be made in fyne pouder and let it stande two dayes infused, then strayne it, and put the Aqua vite so strayned to your oyle and Turpentyne aforesayde, then sette it on the fyre and let it boyle a lytle, tyll the most parte of the Aqua vite be consumed, then take pouder of.

Mastiches } ana foure vnces.
Olibani }
Viridis eris } ana. ii. vnce.
Lumbricorū pulueriſat }

Wash

Wasshe your wormes fyrste in whyte wyne, then boyle all these thynges together a lyttle space, then take it from the fyre and sturre it tyl that it be colde, and so vsed accordyng to arte.

Balsamum artificiæ Lullij.

Rec.	Terebinthinæ.	j. pound and a half.
	Galbani,	two vnces.
	Aloes cicotrinæ,	ana. i. vnce.
	Mastiches,	
	Caryophil,	
	Galangę	
	Cinnamomi,	
	Nucum mustat.	
	Cubebarum	
	Gummi hedere,	halfe an vnce.

When all these is well beaten, myre them and destyll them in a Limbecke of glasse wyth a lowe fyre first, and receiue the fyrst by it selfe seuerally: then increasyng the fyre, a water somewhat reddishe wyll come, and after increasyng it more, an oyle of redde colour, and so doe tyll nothynge runne any more, chaunginge the reseiuer thrise. This oile hath al the vertues of true Balme; for it sinketh in the water, and

courdeth

courdeth milke by and by: for if one droppe of it warme be put into a pynte of mylke, it shall forthwith become courded. The firste liquor is called water of balme, the second oyle of balme the thyrd Balme artificiall. The first is profitable against the runninge of the eares, if two or three droppes morning and euenynge be put into them, also dropt into the eyes, it amendeth the blearednes, & consumeth the teares, it doth meruelously restraine superfluous humours in any part of the body. It taketh away the tothach if they be washt therewith, & kill the wormes if there be any in them. The thyrde liquor wyll suffer no venom: for it is an vtter enemye & destruction to spiders and Serpentes, two or three dropes being let drope into any venemous bytting, do make it hole strait. If thou draw a circle with this liquor, & shut a venomous beast ther in, it shall dye there rather then go out of it. To be short, it doth all the same thynges that triacle doth, but more effectually all thynges. Beyng powred or put vpon any inposume, with in .iv. dayes it healeth them, and likewise a fistulaye, be it neuer so yll: and also, Noli me tangere all diseases brede of fleame and colde humours it healeth them, yf a linnen cloth dypped in it be layde vpon the place where the greafe is, it putteth away vtterly the palsey and all trimblinge of members, it strengthneth meruelously the si-

newes

newes: it is whotter then the first and seconde, if a man put a droppe of it in his hand, it pereeth strayte without greese. To conclud, it doth many other thynges, and all diseases rysen of a cold cause, it health them, if they vse it ryght according to arte. All this is Lullius sayng.

Aliud Balsamum Dorantij.

Rec. Ammoniaci,
Opopanacis,
Resine pinę,
Bdellij,
Mastiches,
Galbani,
Gummi eleme,
Olibani,
Myrrhe,
Sarcocollæ,
} ana halfe an vnce.

Xylobalsami, i. vnce.
Olei benedictæ, } ana one vnce
Laurini } and a halfe.
Balsami Gul. Placentini, half an vnce

Sanguinis

Sanguinis draconis,
Laudani puri, } ana.ij.dragmes

Spicæ nardi,
Castorij,
Galangę,
Cubebarum,
Cinamomi,
Cardomomi,
Granorum paradisi,
Corticis citri, } ana.j.dragme.

Olei Terebinthinæ, ad pondus omnium.

Let all those bee made in pouder that are to bee made in pouder, and the Gummes that can not bee made in pouder, lette them bee cutte in smalle peeces, and putte into a Glasse vessell, with the Oyle and Balme aforesayde, and let them lye in steepe nyne dayes, then destill them in Balneo mariæ, the the space of foure houres, then let them stande seuen dayes more, and destill them agayne as is aforesayde, then strayne them. So haue you a precious Balme, whiche you maye keepe to your vse, for the curynge of woundes, bothe in the similer and instrumentall partes.

Bal-

Balsamum ex intestinię terræ, nostræ Inuentionis

Rec. Lumbricorum halfe a pounde. put them in white wine to purge them one daye, then slet them & make them cleane from all earthye matter, then stampe them finely and put to thē one quart of good Malmesie, & one quart of oile of Iuniper, boyle them all together tyll the wyne be consumed, then straine it, and adde to the straining.

Opopanacis } ana i. vnces.
Ammoniati }
Gummi Arabici, foure vnces.

Desolued in benegre according to art.

Olibani, } ana ii. vnces and a halfe.
Mastiches, }
Myrrhæ } ana. j. vnce
Sang. draconis }
Olei Hpyrici, } ana, vi. vnces.
Terebinthinæ }
Boracis, iiij. vnces.
Aquę vite fortissime, iiii. vnce & a half.
Croci, ij. dragmes
Terebinthinæ. twelue vnces.

Boyle all these together in a bodye of glasse, in Balneo mariæ, vntyl the wyne and Aqua vite be consumed, then let it stande twentye dayes infused, and after that boyle it agayne two howers and so strayne it, and kepe it to your vse. This Balme is moste precious in woundes of nerues and iunctures of all other.

Balsamum ex Croco nostre inuentionis.

Rec. Foliorũ consolide maioris
Consolidæ minoris,
Marrubie,
Centaurij
Hiperice,
} ana. M.i.
Florum Rorismarini,
Chamamille,
} ana M.s.

Let your flowers and herbes be dry and grose beaten, and put to them one pynte of Oleum Lumbricorum, and one pynte of Malmesye. Then let them boyle all together softelye, the space of two howers in a potte very closely stopped, then straine it and adde to the straining.

Mastiches,
Myrrhe
} ana one vnce.

Olibani

Olibani, } ana, i. vnce and a half.
Croci }

Sang. draconis. }
Gummi dragagant } ana halfe a vnce.
Sarcocollæ, }

Laudani }
Castorij } ana, tvvo dragmes.
Bingemj, }

Make all these in pouder then adde to them
Olcorum Terebinthinæ, iiij, vnces,
Spicæ nardi, one vnce.
Terebinthinæ lotę, vi. vnces.

Boyle all these in Balneo mariæ, according to arte.

this Balme is most precious in woundes of the brest that pearceth thorow into the bodye, as I haue many times proued my selfe.

Emplaſtrum de meli-

loto Meſuæ.

Rec. Meliloti. vj. vnces.

Florum chamæmeli
Fœnigræci,
Baccarum lauri,
Radicum altheæ
Comarum abſinthij
} ana tvvo dragmes.

Seminis abſinthij,
Cardamomi
Iridis
Cyperi,
Spicæ nardi.
Caſię
Sęminis ammi
} ana. j, dragme and a halfe.

Foliorum perſici three dramges.
Hammoniaci, tenne dragmes.

Styracis
Bdellij,
} ana. v. dragmes.

Terebinthinæ one vnce and a halfe.
Ficus pinguis numero, xii.

Sepi hircini
Reſinæ
} ana. ij. vnces and a halfe.

Picis,
Ceræ vj. vnces,

Olei

Olei ſampſucini } ana.one pounde,
Olei nardini }

Confice,ſic
Fit decoctio,

Meliloti }
Fœnigræci } ana.q.ſ.
Chamæmeli }

Boyle theſe vnto the conſumption of the halfe then ſtrayne them and put therto your percells fynely made in pouder and boyle them againe addynge the oyles Turpentyne and Gummes diſſolued in Veneger. Then put to the rottes and fygges beyng well bruſed and well boyled together. And myxe all theſe together and make an emplaſter accordyng to arte.

It doth mollifie all hardnes of the ſtomacke liuer ſplene and other intrayles. It doeth alſo ceaſe vehement dolour and payne. And healeth flatulentnes of Hypochondria.&c.

Dia Meliloton Andromachi ex Galeno.

Rec. Nardi gallicæ,
Cyperi
Iridis,
Myrrhæ, } ana, eyghte dragmes.

Croci, foure dragmes.
Meliloti, fyue and tvventy dragmes.
Hammoniaci
Terebinthinæ, } ana, one dragme,

Ceræ one hundred dragmes,
Olei Cyprini, syxe vnces.
Aceti,q,s,
Fiat emplastrum.

Thys emplaster is of lyke vertue wyth that which is next before discribed.&c.

Emplastrum ex fermento Democriti ex Mesuę,

Rec Mellis
Fermenti, } ana one pounde,
Visci quercini, foure vnces,

Hammo-

Hámoniaci in aqua fœnigręci, ant lacte mori arboris, three vnces,
Fęcis olei veteris, q.s,
Fiat Emplastrum,

This emplaster is of greate vertue in drawing out thornes and thynges fyred in any place. Also in taking oute the bones broken of Cranium fractured yea although they be fyred in Dura and Pia mater.

Aliud Simile.

Rec. Fermenti,
Mellis,
Olei Communis
Lactis muliebris
Vitelli ouorum
} ana i. dragme.
Fiat Emplastrum,

It doth digest and maturate inflammations and breaketh apostemes. And yf to thys recepte you adde Bdellium & Farina hordei it draweth oute thornes fyred: yea and so muche the better yf you put to it of Galbanum dyssolued in Veneyger. &c.

Dia Chalciteos Galeni, palmeum vnguentum dictum.

Rec. Axungiæ porci veteris a membranis per Liquationem et Colationem purgatæ, two pounde.
Olei veteris, } ana three
Lithargyri triti } pounde.
Chalcitidis vstę foure vnces.

Boyle all on the fyre and sturre them wyth a stycke new taken of the date tree (you maie in the place hereof vse a sprigge of the Oke) and when as it is well neare boyled adde thereto of the tender croppes of the Date tree newe gathered and cutte small foure vnces (you may in the place hereof vse the yonge buddes and twygges of the Oke) boyle all these vnto the thyckenes of a Cerote.

Thys is ryght good agaynst greene wounds, pestilentiall tumours, apostemes, burnynges, ruptures, contusions, and ecchymomata. &c.

Dia chilon Mesuæ primæ discriptionis.

Rec.

Rec. Muccaginis, { Seminis fœnogręci, Seminis lini, Radicū altheæ, } ana. j. vnce.

Lithargyri, one vnce, and a halfe.
Olei antiqui clari, thre vnces.

The Lytharge muste be made in moste fyne pouder and tempered with the Dyle. Then boyle them on a softe fyer, styrrynge them alwayes with a styse vntyll they bee well bodyed and incorporate together. Then put to your mucilages, and boyle them agayne vnto a sufficient thicknes.

It is good agaynst scyrrhous of the Lyuer, Splene, Stomacke, and other partes, it mollifieth all hardnesse. &c.

Alij addunt pulueris iridis, Mucaginis Meliloti, } ana. j. vnce.

Then it doeth mooze vehementlye resolue and maturate, and is a greater ceaser of dolour and payne.

Alij Olei veteris loco accipiunt.

Olei chamæmelini,
Olei irini, } ana.j.vnce,& half.

Prestantius quoque fit,
Addes etiam si voles.

Galbani,
Hammoniaci } ana.partes æquas.
Sagapeni,

Diachylon gummatum vulgus appellat.

Emplastrum Diachylon magnum Mesuæ.

Rec. Lithargyri, one pounde.

Olei Chamęmelini,
Trini,
Anathini, } ana. viij. vnce.

Muca-ginis, Seminis leni,
Fœnigręci
Altheæ,
Ficū pinguiū,
Vuarū passarū } ana.dragmes, xij.se.

Succi,

Succi, Iridis, Scillæ, Oesypi, Ichthyocollę } ana. dragmes xij. se.
Terebinthinæ thre vnces.
Resini pini, Cerę flauæ, } ana. ij. vnce.
Fiat ceratum vt prius.

It doeth digest and molifie all hardnesse, and therefore maye wyth great profite be applyed vnto schirrhous, and all other inflammations and tumours. &c.

Emplastrum Diachilon paruum Mesuę.

Rec. Lithargyri, vi. vnces.
Olei veteris, one pounde.
Mucaginis Psyllij, iiij. vnces
Mucaginis Seminis Hioscyami. j. vnce halfe,
Muca-ginis, Seminis lini, Radicum althee } ana, ij. vnce.
Fiat vt primum,

It doeth digest and maturate tumours and apostemes which be whote. &c.

Emplastrum ex allijs Actij.

Rec. Ceræ,	two pounde.
Picis Grecæ,	ana.vj.vnce.
Medullæ ceruinæ,	
Nitri albi,	viij,vnces,
Olei,	foure pounde.
Allia, num.xx,	

The Garlyke beynge pylled, boyle in Oyle. Then strayne them, and adde to it Ware, then Nitrum, and make Emplaster accordyng to arte.

It is of vertue agaynst all hardenesse, apostemes, felons, bubones, fistulas, impetigines humidas, and hardenesse of the pappes.

Emplastrum ad vulnera recentia.

Called in the Enchiridion, the greene wounde plaster.

Rec.

Rec. Resinæ, è Pino, } ana. ii, pounde
Ceræ virgineę }
Resinæ, }
Seui ceruiui, } ana. xij. vnces
Colophonij, viii. vnce
Sarcocollę, iij, vnce
Terebinthinę, half a pounde
Mastiches, }
Olibani, } ana. iiij. vnce.
Dragacanthi, }
Gummi arabici, } ana. j. vnce. & half.
Galbani, }
Ammoniaci, }
Storacis calamitę, ij. vnce.
Storacis liquidę, iiij. vnce.

Succorum

Succorum Pyrolę vtriuſq3
Saracenicæ,
Diareuſiæ,
Veronicę,
Soliſeſſequij,
Conſolidę minoris,
Arthemiſiæ,
Plātaginis vtriuſq3
Betonicæ,
Agrimoniæ,
Matriſsiluæ,
Cerefolij,
Saluiæ,
Verbenæ,
Piloſillæ,
} ana three pounde

Boyle the iuſes of theſe herbes, with the Ware Roſine Colophonium and heartes ſuet on a ſofte fyer, with coles vntyll two partes bee conſumed. Then put to it Turpentyne, and the gummes beynge diſſolued in Wineger of Roſes and let them boyle a ſpace. Then put to it Styrax liquida, and Calamita, and yf you wyll haue it ſweete ſmellynge you ſhall adde moſchi ii. ſcruples. Strayn theſe through a cloth and let it ſtande a nyghte, and the nexte daye make

make it in rolles with Dyle of Roſes. But if you wyll haue the Plaſter greener, put to it Succi ſolatri, Sambuci, chelidonij, ana. iij. poũd. And boyle your Plaſter agayne therewyth, but not longe.

This is an excellent Plaſter in all greene and freſhe woundes. For it doeth mundifie incarnate and conſolidate without maner of tentes, it is of merueylous vertues, and therefore had in theſe dayes in more frequent vſe. There bee diuers compoſitions; But in my opinion this is the beſt.

Emplaſtrum Iudæicum, called the Ievves Plaſter.

Rec. Ceræ albæ, foure pounde.
Reſinæ de Pino,
Reſinæ Terebinthinæ } ana. ij. poũde.
Olei roſati, one pounde,
Maſtiches,
Olibani } ana. tvvo vnce.
Myrrhæ,

Roſarum.

Roſarum recentium,	iiij. vnce.
Vini rubei,	iii. pounde.
Succorum pirolę,	ana. quantū ſufficit.
Diapenſię,	
Matriſsiluę,	
Saracenicę,	
Herbæ tunici,	
Soliſsesquij,	
Bethonicę,	
Conſolidæ minoris	
Fumariæ,	
plantaginis vtriuſq;	
Valerianæ,	

Brouſe the herbes, and take of the iuſes, and put to the Wyne: and boyle them on the fyer a good ſpace. Then ſtrayne them, and put to it ſo ſtrayned, Ware, Turpentyne, Roſen and Oyle. Then ſethe the Roſes: after ſtrayne theſe, and put them in a kettle, and ſeethe them fyue or ſixe houres. Then take it from the fyer, and let it be colde. The nexte daye folowynge melte it agayne, and adde to it Maſticke, Frankenſence, and Myrrhe, and ſuffer it a lytle to boyle together. After let it coole, and make it in rolles.

This Emplaſter hath the lyke vertues that the

the other goyng before. For it doeth mundifie, incarnate and consolidate all greene and freshe woundes, and healeth them wythout tentes.

Emplastrum attractiuum Brunsvvicensis.

Rec.	Apostolicon Nicolai,	two vnce.
	Magnetis orientalis,	half an vnce.
	Pinguidinis leporinæ,	ana. halfe an vnce.
	Olei canabis,	

Melte the Oyle and the Hares grease together: and then put to it, the percelles aboue sayde, and make thereof an Emplaster accordyng to arte.

This Emplaster is muche praysed in drawynge oute anye iron fired in woundes, as arrowe heades, mayle, shotte, or such lyke.

Emplastrum gratia dei vocatum.

Rec.	Terebinthinę,	halfe a pound.
	Resinę,	one pound.

Roſarum recentium,	iiij. vnce.
Vini rubei,	iii. pounde.
Succorum pirolę,	ana. quantū ſufficit.
Diapenſię,	
Matriſsiluę,	
Saracenicę,	
Herbæ tunici,	
Soliſsesquij,	
Bethonicę,	
Conſolidæ minoris	
Fumariæ,	
plantaginis vtriuſq;	
Valerianæ,	

Brouſe the herbes, and take of the iuſes, and put to the Wyne : and boyle them on the fyer a good ſpace. Then ſtrayne them, and put to it ſo ſtrayned, Ware, Turpentyne, Roſen and Oyle . Then ſethe the Roſes : after ſtrayne theſe , and put them in a kettle , and ſeethe them fyue or ſixe houres . Then take it from the fyer, and let it be colde . The nexte daye folowynge melte it agayne , and adde to it Maſticke, Frankenſence, and Myrrhe , and ſuffer it a lytle to boyle together . After let it coole , and make it in rolles.

This Emplaſter hath the lyke vertues that the

the other goyng before. For it doeth mundifie, incarnate and consolidate all greene and freshe woundes, and healeth them wythout tentes.

Emplastrum attractiuum Brunsvvicensis.

Rec.	Apostolicon Nicolai,	tvvo vnce.
	Magnetis orientalis,	half an vnce.
	Pinguidinis leporinæ,	ana. halfe an
	Olei canabis,	vnce.

Melte the Oyle and the Hares grease together: and then put to it, the percelles above sayde, and make thereof an Emplaster accordyng to arte.

This Emplaster is muche praysed in drawynge oute anye iron fired in woundes, as arrowe heades, mayle, shotte, or such lyke.

Emplastrum gratia dei vocatum.

Rec.	Terebinthinę,	halfe a pound.
	Resinę,	one pound.

Ceræ albæ,	foure vnces.
Mastiches	fyue vnces.
Betonicæ	ana, M.j.
Verbanæ	
Pimpenelle,	

Stampe your herbes in a morter, and put them into a quart of white wine, & boile it well to the.iij.part be consumed, and that it haue taking the strenght of the herbes, then put in your warc, Rosen, and Masticke, into the iuyse and wine, & let them boile on the fire vntyl the licour be consumed euer styrryng, and then take it of the fyer, and put in the Turpentine, and boyle it, till it come to the forme of a plaster euermore styrryng it well.

This plaster is good for woundes that is cut or brouled, and for broking bones, and ioyntes that hath bene out, and for ache and payne that commeth of colde.

Emplastrum de Minio.

Rec.	Olei rosacei, one pound and a halfe.	
	Vnguenti populei,	ana, foure
	Olei myrtyllorum	vnces.

Pingued.

Pingued. Caponis tvvo vnces.
Sepi vitulini, } ana, halfe a
Vaccini, } pounde.
Axungię, seuen vnces.
Lithargyri auri } ana, three vnces
Argenti, } and a halfe.
Minij, }
Ceruſæ } ana foure vnces.
Terebinthinę, }
Cerę that is ſufficient.

Let all theſe be boyled together, tyll it be blacke, and make thereof a plaſter accordyng to art. This plaſter is good for old ſores, & is the experiment of Ioannes de Vigo,

Emplaſtrum Triapharmacum.

Rec. Olei communis, foure pounde.
Lithargyri auri, tvvo pounde.
Aceti fortiſsi. halfe a pounde,

Make hereof a plaſter accordynge to arte, Emplaſtrum triapharmacum. Is good to make fleſhe growe in woundes and to conſolidate and heale them.

The makyng of the white mucylage plaſter called the Diachilon paruum.

Take fyrſte your Marche malowe rotes and waſhe them, and picke them very cleane, then ſlyſe them and take forth the pythe and caſte it awaye, and cut the other in ſmall peeces, then ſtampe them in a morter, and put two pounde of that ſame you haue ſtamped into a newe earthen potte, wyth foure vnces of Lyneſeede and foure vnces of Fenegreke ſede in groſe pouder: then put vnto them, one quarte of whyte wine and one quart of water, and ſturre it well together, and let the water be boiling hote. Then let it ſtande foure or fyue dayes, tyll it come to perfite mucylage, euery day ſturring it, then ſtrayne it and ſo you haue your mucylage.

Then take Litarge of leide in fyne pouder ſearſed through a fine cloth. vi. pound, cõmon oyle foure quartes. Then boile oile and the Litarge vpon a ſoft fire tyll it fall to a plaſter, and then take a pynte of your mucylage, and put it in by litle and litle, leaſt it runne ouer the pan, & alwaies ſturre it, ſo doyng tyll you haue put in one quart of your mucylage, and ſo fyrre it a litle ſpace after tyll it begyn to ware colde, then putte in the reſte of your muucylage, when you perceiue it wyll not runne ouer the pan, &

ſo

so continuallye labour and worke it, tyll it be verye whyte, then make it vp in roules and kepe it to your vse.

Emplastrum mucilagineum ad Resoluendum humores in tibijs.

Thys plaster was deuised for king Henrie the eyghte to amende the swellyng in his legges.

TAke the rotes of Marche malowes washe & picke them cleane, then slitte thē and take oute the inner pithe and caste it away, and take the vpper fayre whyte parte and cut them in smalle peeces, and brouse them in a morter and thereof take one pounde and putte them in a newe earthen pote and adde therto of lynesede and Fenegreke ana. two vnces a litle brosed in a morter, then put thereto malmsie and whyte wyne ana. a pynte, and sturre altogether and lette them stande infused, two or three dayes, then set them ouer a soft fire and sturre it well tyll it ware thycke and slimme, then take it of and straine it through a newe canues clothe, and thus haue you your mucylage readye and then to make your plaster. Take fyne Oyle of Roses a quarte and washe it well

with whyte wyne and rose water. Then take the oyle cleane from the water and wyne, & set it ouer the fire in a brase pan alwaies sturringe it and put thereto the pouder of.

Lythargyri auri Lythargyri argenti,	}	ana, viij. vnces,
Cerusæ,		vi. vnces.
Corallo. rub.		ij. vnces.
Boli armoniaci Sangui. draconis,	}	ana one vnce.

And in anye wyse make them in fyne pouder searsid, then put them into the oyle ouer the fire alwaies styrring, and let not the fier be to bigge for burning of the stuffe, and when it beginneth to ware thicke, then put in of the sayd mucylage. v. vnces by litle and little at ones, or els it wyll boile ouer the pan, and when it is boiled enough ye shall perceyue by the hardnes or softnes therof, if thou drope a lytle of it on a dishe botome or cold stone then take it from the fyre, and whē it is nere cold, make it in roules and lape them in parchyment, and kepe them to your vse.

Emplastrum pro Chamæleontiasi nostræ inuentionis.

Rec.

Rec. Axungiæ, tvvo pounde.
Aquarum roſarum, } ana, iiij. vnces.
Plantaginis, }

Waſh it wel vntil the waters be conſumed in to the ſayd greaſe, then let it ſtande the ſpace of viiii. daies, then put it in a pan ouer the fyre and adde to it.

Olei roſarum, one pounde,
Minij, tvvo pounde,
Aceti optimi, one pynte.

Let the barkes of Elme remaine in the vineger iiii. dayes infuſed, make hereof a plaſter accordyng to art. This is a good plaſter for ſcabes for byles & for ſore legges and many other thynges, for it molifieth & healeth gentlye and taketh awaye payne. Thys plaſter I dyd vſe much in yl ſcabes of Chamęliontiaſi, after they were mundifyed wyth marcurye præcipitate: And alſo in ſwellyng of ioyntes & in the goute and wyth thys plaſter I dyd great cures after the body was wel purged, & if thou would haue it to heale an olde ſore, thou muſt put in a lytle coperous in pouder in to the veneger. And ſo boyle it accordyng to arte.

Emplaſtrum Ceruſæ.

Rec. Olei roſati, tvvo pounde.
Axungiæ lotę in aqua roſacia & vino, one pounde.
Ceruſæ puluerisatę, foure pound
Ceræ albæ, viij. vnce.

Welte your Ware wyth your Oyle and Hogges greaſe, then put in your Ceruſe in fyne ponder by lytle and lytle, euer ſtyrringe it for burnynge to the bottome, vntyll it come to the forme of a Plaſter, the whyche you maye knowe by droppynge ſome of it vppon a ſtone, or a diſhe bottome, vntyll you haue it accordynge to your mynde. Thys Plaſter is good for ſcabbes in an euyll whote complexion, for it doeth quickely dryue them, and ſkynne them. If you waſhe it wyth whyte Wyne, it wyll be muche the better.

Emplaſtrum Caliſienſæ.

Rec.

Rec. Olei roſati, j.pounde,iiij. vnce.
Ceræ albæ, j.pounde,
Ceruſæ Venetæ pul. j.pounde.

Boyle all theſe vppon a ſofte fyer, euermore ſyringe it tyll it come to the forme a Plaſter, and than take it from the fyer, and in the coolynge putte in of Campher, two dragmes in fyne pouder, and make it vp in rolles.

Thys Plaſter is good to cicatrice vlcerations, after they bee well mundified and incarned. It is good to drye vp ſcabbes, when the bodye is well purged before.

Emplaſtrum de ſpecibus, for ache and payne in the ſhulders, armes, or ſome other places of the bodye.

Rec. Reſinæ,
Pereſinæ, } ana.j.pounde.
Ceræ albæ,
Colophonij, viij.vnce.
Vini rubei, ii.pounde.

Caryophillorum, Maceris,	} ana. one vnce.
Olibani,	iiij. vnce.
Maſtiches,	ij. vnce.
Myrrhæ,	j. vnce.
Croci,	halfe an vnce.

Make thoſe in fyne pouder that are to bee made in pouder, and boyle your Roſyne, Pirroſyn and Ware, with foure vnce of deare ſuet, and ſtrayne it thorowe a Canuas clothe. Then ſet it on the fyer agayne vntyll it boyle, and when it boyleth, take it from the fyer, and put in your pouders and ſtyrre it, vntyll it bee colde: and in the coolynge, put in the redde Wyne, and labour it together, and make it vp in Rolles. And yf you adde vnto thys, one vnce of the leaues of Rewe dryed & made in fyne pouder, and fullye ſearſed, it is then good for Sciaticus, & other colde ſickennes of the ioyntes, yf the bodye bee well purged before with Pylles of Hermodactolior, or other purgations meete for the ſame purpoſe. &c.

Emplaſtrum Ianuacenſe.

Rec.

Rec. Succi plantaginis
Betonicę,
Apij, } ana. j. pounde.
Picis,
Perroſinæ, } ana. j. pounde.
Ceræ, ij. pounde.
Terebinthinę, foure vnce.
Roriſmarinę pulueriſatæ, tvvo vnce.

Melte your Piche, Roſyne, Ware, and Turpentyne together with,

Olei Ienuperæ, tvvo vnce.

Then put in your pouder of Roſemary leaues ſtyrring it verye well, then put in your iuſe by lytle and lytle, euer ſtyrryng it continually vntyll it bee colde, and ſo make it vp in rolles, and kepe it to your vſe.

Emplaſtrum nigrum Ioannis de Vigo & D. Buttes, **for bliſtering, burninge, ache, and excoriation, comming of whote humours, and for all whote vlcerations.**

Take

Take vnslecked Lime, and quench it in water seuen tymes, and in whyte wyne two times then take of that pouder, one vnce and a halfe.

Cerusæ, one vnce.
Tutiæ, one dragme.
Olei rosati one pynte.
Sepi vitulini foure vnces.
Succi plantaginis
Solatri,
Lactucę
Centumnodij } ana, two vnces.

Wole all these iuyces with the Oyle and the suiet on a softe fyre, tyll the iuyce be consumed then putte thereto.

Vnguenti rosarum, one vnce.
Ceræ albæ one vnce.

And boyle them agayn euer sturryng it with a slater then put thereto your mencralls finelye poudred and searched, and when it is sufficiently boyled, take it from the fyre, and when it is colde put it in a morter of brasse and labor it wel, then put it in a boxe, and thereof make your plaster on a linnen clothe.

Emplastrum

Emplastrum Iacobi.

Rec. Lapidis calaminaris
Terræ Sigillatæ
Lapidis Lazulę,
Lapidis sanguinaris,
Lapidis Emiri, } ana, ii. vnces.

Sanguinis draconis
Boli armeni, } ana two vnces.

Let all these be made in verye fyne pouder, then take oyle of Roses a pynte and set it ouer a softe fyre, puttyng thereto.

Ceræ albę halfe a pounde,
Sepi cerniuę, foure vnces

And when they be relented put thereto all the pouders and sturre them wel and let them boile a lytle whyle, then take it downe and put there to in fyne pouder.

Masticches,
Olibani. } ana. one vnce.

and

And ſtyre it, and when it is almoſte colde, put thereto,

Terebinthinæ,	ij.vnces.
Champhoræ,	ij.dragmes.

Made in fyne pouder and well mingled, and make it vp in rolles accordynge to arte, and kepe it in leather, and ſo vſe it,

Emplaſtrum deſicatiuum, D. Butti militis & medici regij.

Rec.	Olei roſati,	viij.vnce.
	Ceruſæ, Mindij,	ana.ij.vnce.
	Lithargyri auri, Sanguinis draconis, Boli armeni,	ana. j.vnce.
	Camphoræ,	ij.dragmes.

Make

Make all these mynoralles in fyne pouder and mire with the Dyle, and set it on a softe fyer alwayes styrynge it, and let them boyle, tyll they bee plasterlyke, and so make it vp in rolles. And if you adde vnto thys Plaster in the boylinge thereof, foure vnces of Vineger of Roses, it wyll bee muche better to drye and defende the members from accidentes. This Plaster was well proued by kyng Henrye the eyght for his legges.

Emplastrum Gul. Firmigonis militis.

Rec. Lithargyri pulueriſatę, j. pounde,
Olei roſati, one pynte,
Ceræ albæ, tvvo vnce.
Myrrhæ, } ana. one vnce.
Olibani, }
Vini albi, } ana. half a pound.
Vrinę, }
Aceti albi, a quar. of a pound.
Solatri, } ana. M. ſc.
Plantaginis, }

Put

Put the Herbes into a mozter wyth the Vi-neger, and ſtampe them together, then wrynge oute the iuſe, and put vnto the Vineger and Wyne aforeſayde. And thus you muſt make your Plaſter. Melte your Oyle and Ware to-gether in a fayre Panne, and let it boyle. Then by lytle and lytle, put in your Litharge, euer ſtyrrynge it. Afterwardes put in your iuſes by lytle and lytle, tyll you haue put in all. But bee ſure it bee well ſturred, for ſittynge to the bottome. Your panne muſt bee of a good bygneſſe, or elles when you put in your iuſes, it wyll boyle ouer the panne. So let it boyle euer ſtyrrynge it well, tyll the iuſes be conſu-med. Then laſte of all put in your Myrrhe and Olibanum in fyne pouder, and ſtyrre it tyl it bee colde, yf it bee to harde make it ſofter wyth Oyle of Roſes, yf it bee to ſofte, boyle it a lytle mooze accozdyng to arte.

This is a ſpeciall Plaſter, for all kyndes of vlcerations, as well of the legges, as of other partes of the bodye, for it hath vertue altera-tiue, reſoluatiue, and excicatiue. Prouided al-wayes that the bodye bee vniuerſally purged, as often as need ſhall require.

Cerates.

Hydrelæon Galeni.

Rec. Lithargyri argenti, one pounde.
Aquæ limpidæ } ana two pounde.
Olei puri, }

The Litharge is to be made in moſt fine pouder, and the other to be ſtyrred in a morter of ſtone, then boyle them on a ſoft and ſmalle fyre of coales. The medicyne is to be made in the ſunne the daye beynge fayre that it maye be the whyter, and the fyre vanyſhinge you muſt ſtill adde freſh coales. And boyle theſe to the ſubſtaunce and thicknes of a cerote.

It doth refrigerate and therefore is the vſe of it profitable in vlcers, for it ſuffereth not any humour, to flowe vnto them, and that whych is alreadye come it putteth to the partes adiacent. Therefore it healeth ytchinges and malignant vlcers. &c.

Oxelæum Galeni.

Rec. Lithargyri argenti, one pounde.
Olei veteris,
Aceti optimi } ana tvvo pounde.
Confice vt supra.
Componitur etiam ex Olei et aceti tvvo pound and a halfe: vel ex singulorum three pounde, tunc enim nigrius est et valentins.

It doth dry fistulas which haue not callus indurated & cureth them. And doth conglutinate græne and bloudy woundes and such like. &c.

Oenelæum Galeni.

Rec. Lithargyri argenti one pounde.
Olei clari,
Vini albi optimi } ana tvvo pounde.
Coque et confice vt superiora.

It doth excicate and dry, therefore it is good agaynst sluckses and reumatike passions: and it healeth greene woundes.

Dia

Dia pipereos Galeni.

Rec. Lithargyri argenti, } ana one pound.
Ceruſæ, }
Olei communis, two pounde.
Ceræ ſyxe vnces.
Terebinthinæ three vnces.
Thuris, one vnce and a halfe.
Aluminis, ſyxe dragmes,
Piperis three dragmes,
Fiat in hunc modum.

The Lythargye beyng made in fyne pouder is to be boyled wyth oyle, in the ſunne and ſo longe it is to be boyled vntyll it come to ſubſtaunce of an emplaſter and will not cleaue to your handes. Then put to it the Turpentyne and waxe. Theſe beyng molten you ſhall adde your pepper Frankenſence and alome made in fine pouder. Laſte of all put to your ceruſe alſo finely poudred. And alwayes in the boylynge ſturre them and boyle them ſo longe vntill they come to the thicknes of a cerete.

It healeth the vlcers and ſores in olde men and thoſe that haue ſofte bodyes. And further cureth all vlcers whych wyll not wythout difficultie come to a cicatrice.

Ceratum è Ceruſæ.

Rec. Ceruſæ, one pounde and a halfe.
Olei roſati, tvvo pound,
Ceræ candidæ, foure vnces.

The ware beyng molten, put to the Ceruſe made in fyne pouder and boyle it ſo long vntyll it commeth to blacke colour.

It cureth burnynges, ſkaldynges, erysipelas ſcabbes and all hote vlcers. &c.

Ceratum è Betonica, Capenſis.

Rec. Terebinthinæ } ana iiij vnces.
Reſinæ pini, }
Ceræ flauæ, }
Betonicæ puluerataæ, one vnce,
Maſtiches, } ana halfe an vnce.
Thuris, }
Mumię, foure dragmes.
Miſce, Fiat malagma ad capitis vulnera vtile.

It is ryghte profytable in paynes of the heade. &c.

Ceratum Capitale, Carpensis.

Rec. Terebinthinæ in vino maluatico, sepius lotæ, } ana, three
Resinæ pini, } vnce
Ceræ albę
Mumiæ, one vnce & a halfe.

The Turpentyn Rosen and ware being molten putte to the Mumye made in fyne Pouder. Boyle them on the fyre, and sturre them continuallye. Then put these in a cleane vessell in which is rose vineyger made of malmesie foure pound. Let al these macerate xxiiij. howers, then expresse and wrynge oute the veneyger wyth your handes and kepe it in a vessell of glasse to thy vse. &c.

Ceratum è Styrace, magistrale.

Rec. styracis liquidæ foure vnces.
Cerę flauę tvvo vnces.
Thuris, } ana. i. vnce.
Myrrhæ }
Fiat ceratum secundum artem.

It doth aſwage and ceaſe hard tumoꝛes of the neruys and ioyntes and other partes.

Ceratum Gratia dei:

Rec. Galbani,
Opopanacis,
Aeruginis,
Thuris,
Ariſtolochiæ longæ
Maſtiches
Myrrhæ, } ana j, vnce.

Hammoniaci, vnce j. dragme. ij.
Ceræ, eyght vnces.
Lithargyri
Olei communis, } ana. 18. vnces
Bdellij tvvo vnces,
Lapidis calaminaris
Lapidis Hęmatitis } ana, one vnce.
Olei abſynthij, foure vnces.
Terebinthinæ, ſyxe vnces,
Fiat Ceratum.

It

It doth mollifie, mundifie and conglutynate, and therefore is ryght excellent in apostemes, tumours, and such like. It is profitable in filthy vlcers, and doth conglutinate woundes. &c.

Dia cadma Galeni.

Rec. Cadmiæ pręparatę, Chalcitidis vstę, } ana, 16. dragmes.
Ceræ, lxxx, dragmes
Colophoniæ, lxiiij, dragmes,
Olei myrtini, one pounde,

It is ryght excellent in vlcers which will not easely come to a Cicatrize, for it doeth cicatrise all vlcers. &c.

Ceratum de Salice.

Rec, Misy, Aluminis rotundi, Chalcitidis, Melantherij, Aeruginis, Aluminis sciſsilis, Gallarũ accerbarum } ana, vj, vnces.

Ceruſæ,
Cerę
Reſinæ Fricte,
Picis brutię
Bituminis,
Olei omphacini,
Foliorum ſalicis tenerorũ
} ana two pounde

Boyle the leaues in ſtronge vineger, then dry them and make them in fyne pouder. Then melte that is to be molten, and in the coolynge adde your other percelles made in fyne pouder and make a cerote accoyding to arte. &c.

It doth heale vlcers malignant and thoſe that wyll hardly be cured. Alſo erysipelas and many other affectes, as fistulas and other.

Barbarum paruum Galeni.

Rec. Picis nigrę,
Cerę
Reſinę pini,
Picis grecę
Bituminis,
} ana one pounde.

Lithargyri

Lithargyri, tenne dragmes.
Ceruſæ,
Aeruginis, } ana fyue dragmes.
Opopanacis. three dragmes.
Olei. nine dragmes.

Let thoſe thynges that are to bee beaten bee put in a morter with ſtronge Vineger. The other muſt bee molten on the fyer: And all beynge mired together, boyle them ſo longe vntyll they cleaue to thy fyngers. But yf thou wylt haue it apter to ceaſe dolour and payne, adde to it of

Succi hyoſcyami, } ana. halfa drag.
Opij,

It is good to bee vſed in greene and freſhe woundes, and for the bytynge of madde Dogges, alſo for inflammations of the ioyntes and the goute. &c.

Barbarum magnum Galeni.

Rec. Picis, viij. pounde.
Ceræ, vij. pound. viij. vnce.

Reſinæ pini,	v.pounde. iiij.vnce.
Bituminis,	iiij.pounde.
Olei,	j.pound.vj.vnce.
Lithargyri, Ceruſæ, Aeruginis,	ana.iij.vnce.
Thuris,	vj.vnce.
Aluminis liquidi,	j.vnce & a half.
Aluminis ſciſsilis,	iiij.vnce,
Opopanacis, Squammæ æris, Galbani,	ana.xij.dragmes.
Aloes, Opij, Myrrhæ,	ana.iiij.dragmes.
Succi mandragoræ,	vi.dragmes.
Terebinthinæ,	ij.pounde.
Aceti,	v.pounde.

Make of theſe a Cerote in ſuche ſorte as is mencioned in the deſcription goynge before. &c.

It is of the lyke vertues wyth the other goyng before; but that where the other is vſed in

ſmalle

ſmalle woundes, this is applyed to greate woundes.&c.

Iſis ex Galeno.

Rec.	Ceræ,		C.dragmes.
	Terebinthinæ,		CC.dragmes.
	Squammæ æris,	}	ana.viij.dragmes.
	Aeruginis,		
	Ariſtolochiæ,		
	Thurirs,		
	Salis hammoniaci,		
	Aeris vſti,		
	Aluminis vſti,		vj.dragmes.
	Myrræ,	}	ana.xij.dragmes.
	Aloes,		
	Galbani,		
	Olei veteris,		x.vncæ.

Boyle them as before, and your handes beynge wette in ſtronge Vineger, make of theſe rolles accordynge as is the vſe, and after putte them in Vineger tenne dayes. Then take them oute, and reſerue them to thy vſe.

It is founde good for the head. Also againſte olde and rebellous vlcers, and thoſe that bee bloodye. &c.

Ceratum viride Macharionis ex Galeno.

Rec. Olei roſati omphacini, ſyxe vnce.
Ariſtolochiæ,
Galbani,
Opopanacis,
Hammoniaci, ana. i. vnce.
Aeruginis,
Myrrhæ
Iridis,
Terebinthinæ, vij. vnces. & a halfe.
Ceræ tantundem.
Fiat ceratum.

It ſerueth for all greene woundes, it putteth awaye inflammations, and is vſed in vlcers of the eyes and eares. It doeth ingender fleſhe on the bones that are bare, and without fleſhe, and doeth conglutinate ſpedelye. &c.

Dia dictamini Galeni.

Rec. Olei veteris, tvvo pound & a halfe.
Lithargyri, one pounde & a halfe.
Aeruginis, one vnce.
Squammæ æris, fyxe dragmes.
Colophoniæ, vj.vnce.ij.dragmes.
Pollinis thuris, one vnce & a halfe.
Hammoniaci, tvvo vnce.
Aeris vsti, one vnce.
Diphrygis, Gentianæ, } ana. vj.vnce.
Propoleos, Aloes, } ana. j.vnce.
Galbani, one vnce & a halfe.
Aristolochiæ rot. Dictamni cretens. } ana. j.vnce. ij.dragmes.
Ceræ, xxv.dragmes.
Confice in hunc modum.

Boyle your Litharge and Oyle so longe together vntyll that they are well boyled. Then put to your Eruge, and Squamma eris, let them a lytle boyle. Then take them from the fyer, and adde to them Rosyne and Ammoniacum dissolued in Vineger, then put to Ware

and

and es vſtum. Then boyle them agayne vntyll it cleaue not to the handes. &c.

It is good in greene woundes, punctures of the Nerues, old vlcers, & thoſe that wil hardely cicatrize, alſo for apoſtemes, felons, & ſcirrhous. It draweth out thynges fired, as arrowe heades, dartes, thornes, &c, and is of great force agaynſt all venomous byting and ſting. &c.

Ceratum oxycroceum Nicolai.

Rec. Croci,
Picis nigæ,
Picis græcæ,
Ceræ, } ana. iiij. vnce.
Terebinthinæ,
Galbani,
Hammoniaci,
Myrrhæ,
Thuris,
Maſtiches, } ana. j. vnce, iij. dragmes.

The Galbanum and Hammoniacum diſſolued in Vineger muſt bee boyled vntyll the Vineger bee conſumed. Then adde the Piche, Ware, Turpentyne, all molten, after the Maſticke, Frankenſence, and Myrrhe, made in fyne pouder. Boyle theſe vntyll they come to a conuenient thycknes, then put in colde water

water, and presse it out againe. After with Oyle of Bayes your handes beyng annoynted, worke this Cerote and extende it out. Last of all your Saffron beynge made in fyne pouder, mixe them together, and make a Cerote as arte requireth.

It is vsed in fractured bones, and in the partes of the bodye, where as dolour and payne is. It doeth mollifie and make softe al hardenes, and putteth it awaye quite. &c.

Ceratum ex pelle arietina Arnoldi de villa noua.

Rec.	Lithargyri,	ana. halfe dragme.
	Lapidis Liçmatitis,	
	Sanguinis draconis,	
	Boli armeni,	
	Opij,	
	Mastiches,	
	Hammoniaci,	
	Mumiæ,	
	Galbani,	
	Thuris,	
	Costi,	
	Lumbricorum,	

Picis

Picis nigræ,
Picis greçæ,
Cerę albę,
Cerę rubę,
} ana. j. dragme.

Radicum maioris,
conſolidæ minoris,
} ana. iij. dragmes.

Roſarum rubrarum,
Myrrhæ,
Aloes,
} ana. xviij. graines.

Succi hypociſtidis,
Gallarum immaturarū,
Balauſtiorum,
Ariſtolochiæ rot.
} ana. vj. drag.

Viſci quercini,
Terebinthinę,
} ana. ij. dragmes.

Sanguinis hominis rufi. ix. vnce.
Fit autem in hunc modum.

Boyle the Wethers ſkynne whole with the heare and wolle on it in water vntyll it bee brought into the ſubſtaunce of Glewe, whiche thou ſhalt ſtrayne. Take of thys ſtrayned one poũd put it in a new veſſel in which the Veſſelto is reſolued, then putte in the Lumbrickes, after the Ware, Turpentyne, and Paſticke, theſe beynge molten, put to the Gummes

diſſolued

dissolued in Vineger, and boyle them to the thicknes of a Cerote. Laste of all adde the pouders, and mire them together, and make them in rolles. &c.

It is of great foyce and vertue in ruptures, as hath often bene tried. &c.

Ceratum D. Guli. Buttes Medici, ad vlcera antiqua & phagedęnica.

Rec, Olei rosati,
Ceræ albæ } ana one pounde.
Ceruſæ, one pounde and a halfe.

Set the Oyle and Ware together on a softe fyer, and relent the Ware wyth the Oyle, then put in the Lead in fyne pouder, euer styrynge it well vntyll it ware blacke. Then take it from the fyer, and dippe therein peeces of fyne lynnen clothe, and there is your searclothe.

Ceratum D. Gul. buttes Medici ad iuncturarum dolores.

Rec. Olei rosati, foure vnces.
Aceti, tvvo vnces.
Lithargyri,
Cerusæ } ana one vnce.
Cerę albę,
Scorię ferri preparatę, syxe dragmes.

Set the oyle ouer the fier and put therto the veneyger and boyle them on a soft fyer to the veneyger be cleane consumed, then put in al the foresayde thynges fyncly poudred and searced, euer sturryng it, tyll it be plaster lyke, then dype in your cloutes and when they be colde, stripe them wyth a sleeke stone and make them smouthe and vse them.

Ceratum viride Iamarici.

Rec. Olei rosati, halfe a pounde.
Sepi bubulini, one pounde,
Chelidonij,
Allaluay, othervvise called sorrel de boies vel Panus conkelle } ana. thre vnces.
Lybistici,
Thymi,
Saluię,

Ceræ,

Ceræ
Terebinthinæ, } ana, tvvo vnces.
Viridis eris,
Aloes, } ana, one vnce.
Masticches,
Olibani, } ana, halfe an vnce.

Stampe all your herbes wyth your oyle and talow, and let them stande by the space of eight or nyne dayes, then boyle them till you haue taking the strength of the herbes, and put therto fyrst your ware, and let it boyle tyll the ware be molten, then take it from the fyer, and adde therevnto all the reste of your thynges in verye fyne pouder, and laste of all when it is almost colde, put in your aloes, continually sturring tyll it be colde. Thys oyntment was made by the noble Chirurgian, Jamaricus, and is of moste excellente operation.

Trochiſce & pouders.

Trochiſci Andronij ex Andromacho.

Rec. Florum mali punici. tenne dragmes.
Gallæ omphacitidis, viij dragmes.
Myrrhæ, } ana, foure dragmes,
Ariſtolochiæ }
Calcanthi, }
Aluminis ſciſsilis, } ana, ij. dragmes.
Myſi, }
Formentur trochiſci cum.
Sapæ, q.ſ.

It is good in grene wounds, it healeth fiſtulas, corrupted bones, and taketh away all ſuperfluous fleſhe, and is approued in eatynge vlcers called Phagedenica. &c.

Trochiſci Polyidæ ex Andromacho.

Rec. Florum mali punici, x. dragmes.
Aluminis ſciſsiſis iij. dragmes,
Thuris, } ana iiij. dragmes.
Myrrhæ, }
Calcanthi, tvvo dragmes.
Fellis taurini, ſyxe dragmes.
Aloes eyghte dragmes.

For-

Formentur paſtilli cum vini auſteri.q.ſ.

It hath the lyke vertues and properties wyth the Trochiſce before diſcribed.

Trochiſci Muſæ.

Rec. Alumins ſciſsilis,
Aloes,
Myrrhæ,
Calcanthi, } ana,vi,dragmes
Croci,
Crocomagmatis } ana iij,drag.
Florum malorum granatorum domeſticorum, foure dragmes.
Formentur paſtilli cum vini odorati et Mellis. ana,q.ſ.

This Trochiſce hath many vertues and ſerueth dyuers vſys in Chirurgerie it dothe relare and maturate.&c.

Trochiſci de Minio erodentes Ioānis de vigo.

Rec. Medullæ panis non cocti benè fermentati. foure dragmes.
Sublimati electi, one dragme.
Minij. halfe a dragme.
Aquæ roſarum, q.ſ.

It taketh awaye all superfluous and spongious flesh in vlcers, it mundifieth filthie vlcers, it mollifieth Callus, and doeth mercyloussy heale and cure fistulas. &c.

Trochisci D. Gul. Cunynghami Medici.

Rec. Balaustiorum,
Aluminis scis.
Sangui. draconis,
Mastiches,
Mumiæ
Thuris,
Myrrhæ, } ana. j. drag. & a half
Lithargyri auri,
Cerusæ venetę, } ana. j. dragme.
Centaurij minoris,
Helenij,
Aristolochiæ rot. } ana. halfe a drag.
Croci, ij. Scruples.
Boli armeni prępărati omniū pondus.

Make all these in most fyne pouder, and with plantain water, and aqua vite (in which is dissolued of good triacle ij. dragmes) vsing them in to Trochisse according to arte.

This Trochisse made in pouder & tempered with

with plantaine water, & layed on spleageants, doeth put away inflammations, ceaseth flures, cureth herpes bothe estiomenus and miliaris, also erysipelas. Further in olde and maligne vlcers which wil not cicatrize, it doth both mundifie them, incarnate & make a perfect cicatrize, it hath many other vertues, whiche the Chirurgian vsing it rightly shal easely perceyue. &c.

Puluis.

Puluis contra scabiem communis.

Rec. Sulphuris flaui,
Cumini,
Baccarū lauri,
Staphidis agrię,
} ana. j. vnce.

Make hereof a pouder, & when you wyll vse it against the scabbes mixe it w̄ oyle of roses.

Alius Nicolai efficatior.

Rec. Lithagyri,
Hellebori nigri,
} ana. j. vnce.

Sulphuris,
Nitri,
Maioranæ, } ana.ij.dragmes.

Make these in fyne pouder, and vse it as before. &c.

Puluis Cephalicus Lucij ex Galeno.

Rec. Iridis, iiij.dragmes.
Aristolochiæ rotũdæ, } ana.ij.drag.
Pollinis thuris, }
Corticis radicum panacis. iiij.drag.
Fiat puluis.

It healeth those paynefull soores called Nomę.

Alius Tryphonis.

Rec. Corticis piceæ,
Squamæ æris,
Punicis combusti, } ana. vj.dragmes.

Thuris,
Iridis,
Aristolochiæ rot.
Resinæ pini fricte, } ana. iiij.dragmes.

Aloes,

Aloes,
Myrrhæ, } ana. ij. dragmes.

Take these in fyne pouder. It is verye good to take awaye the skales of corrupted bones. &c.

Alius eiusdem ad omnem hęmorrhagian.

Rec. Thuris, one vnce.
Aloes, halfe an vnce.
Fiat puluis,

This pouder muste bee mixed with the whyte of an Egge, and the heares an Hare small cutte, and apply it to the place where as the flure of blood is. &c.

Puluis incarnans, & sanguinem restringens, Ioannis de Vigo.

Rec. Aloes,
Myrrhæ, } ana. j. dragme.
Sarcocollæ, one dragme & a halfe.
Thuris,
Pollinis farinæ, } ana. ij. dragmes.

Sanguinis

Sanguinis draconis, } ana, ij. dragmes
Terræ lemniæ, } and a halfe.
Tutiæ, }
Lithargyri, } ana, one dragme.
Tragacanthæ, }
Fiat puluis tenuis.

This Pouder doeth incarnate and ceals the flure of bloode, and therefore the Authour gaue it the same name.

Puluis causticus sanguinem comprimens Galeni.

Rec. Chalcitidis, C. scruples.
Chalcanthi, L. scruples.
Misyos torrefacti, xxv. scruples.
Aeris vsti, xij. scruples & a halfe.
Fiat puluis,

This Pouder taketh awaye proude and spongious flesh, it stayeth the flure of bloode, and maketh an Asker, for it is a potentiall cauterise, &c.

Preci-

Præcipitatus Ioannis de vigo.

Rec. Salis nitri, one pound and a halfe.
Vitrioli romani, } ana. one pounde.
Aluminis, }

Deſtyll theſe by a Lymbecke and take of thys water one pynte of Argent Viue one pounde. But theſe in a Glaſſe ſtyll wyth hys receptorye well luted, Cum luto ſapientię, and ſtyll it ſo long vntyll the glaſſe ware redde. Put awaye the water, and the Argent Viue that is combuſt (wheych the Alchymiſtes call præcipitate) make in fyne pouder vppon a marble ſtone then myxe hym with hys water agayne and deſtyll hym as before. Then breake the Glaſſe and take hym oute and make hym in fyne pouder. After put hym in ſome veſſell of Braſe and wyth a ſiſe alſo of Braſſe ſturre it beyng on a ſharppe and greate fyre vntyll it looke lyke redde leade, &c.

Alius rubeus Brunſuicenſis.

Rec,

Rec. Matris perlarū combuſt.
Pompholigos
Lithargyri,
Boli armeni,
Terrę Sigillatę
Sangui.draconis,
Aeruginis ęris
Caphurę, } ana i.vnce
one dragme,

Make theſe in fine and ſubtyle pouder.

Thys is a ryghte perfyte exiccatiue pouder and wyll not ſuffer ſuperfluous or yll fleſhe to growe in the wounde.

Alius Puluis rubeus eiuſdem,

Rec. Sanguinis draconis
Olibani,
Aloes hepaticę
Sarcocollæ, } ana, one vnce

Irios

Irios halfe an vnce, fiat puluis,

Thys pouder is vsed in stanchynge of blonde in woundes and is also an incarnatiue.

Puluis Longobardorum.

Rec. Sanguinis draconis,
Boli armeni,
Terrę Sigillate, } ana, i. vnce
Balaustiorum
Acatie,
Hypocistidis } ana one vnce and a halfe.
Nucum cupressi
Mumiæ
Mastiches } ana tvvo dragmes,
Thuris,
Sang. humani combusti, one vnce.
pilorum Leporis combust. thre vnces,
fiat puluis.

It is excellent in lettynge of the flure of blood, and doeth alſo conglutinate woundes and toyne their ſydes together. &c.

Puluis ad ſanguinem ſiſtendum.

Rec.	Sanguinis draconis,	j. vnce & a halfe.
	Olibani,	ij. vnce.
	Maſtiches,	j. vnce.
	Aloes hepaticę	vj. dragmes.
	Sarcocollæ,	v. dragmes.
	Iridis,	ana. vnce. ſe.
	Pulueris molaris,	

Make all theſe in fyne Pouder, and keepe it in a Glaſſe.

This Pouder doeth reſtraine the bleedynge of woundes, if they bee ſtitched accordynge to the arte of Chirurgirie, and layed vppon the wounde, mixed wyth the whyte of an Egge

an Egge , and a lyttle greene Balme layde vppon lynte and so applyed to the wounde, it maketh the fleeshe to growe together in shorte tyme , and kæpeth the wounde from putrifaction and payne and suche like accidentes.&c.

Puluis Lanfranci pro eodem.

Rec. Olibani, two vnces.
Sanguinis draconis, } ana .one vnce
Boli armoniaci, } and a halfe.
Mastiches, }
Pulueris molaris, } ana half an vnce.
Aloes cecotrinæ, three dragmes.

Make all these in fyne pouder accordynge to arte and kepe them in a glasse and myxe it with the whyte of an Egge and greene Balme when you wyll vse it as is aforesayde.

Puluis restrictiuuis.

Rec. Pulueris molaris } ana.syxe, vnce
Farinæ Hordeacię, }

Gummi

Gummi dragaganti,
Gummi arabici,
Olibani,
} ana, ij. vnces,

Mumiæ,
Boli armeni,
} ana. j. vnce.

Make all theſe in fyne Pouder accordynge to arte.

This pouder is good for broken bones of the Legges, Armes, or any other place of the bodye. And when you do miniſter it, it muſte bee mingled wyth the whyte of an Egge, well beaten together, and it muſt bee ſpredde vppon a lynnen clothe double. And when you haue reduced and put the bone that is broken into hys ryghte place agayne (ſo that it ſtande euen and ſtrayghte as it dyd before) you maye applye this medicine vppon it, or rounde aboute it, as the cauſe doeth requyre. Layinge the member euen vppon a bourde, or vppon ſome thynge made for the ſame purpoſe. But you muſt be ſure to defende the member wyth a good defenſiue that no euyll accidentes come vnto it, and ſee that the member be very well ſplented, wyth good and conuenient ſplentes, and take hede that you bynde not the member to ſtrayte or faſte, leaſt you ſtoppe the courſe of the lyuelye ſpirites, and ſo the

man maye both lose his member and hys lyfe. This poudet maye lye on to the seuenth daye or the tenth daye, if there come no euyll accidentes, and then refreshe it agayne as you dyd before, and yf anye accidentes come to the member, you muste remoue it the soner, and annoynt it wyth warme oyle as is afore-sayde. This pouder is good also for wounded for it stoppeth bledyng and maketh the wound quicklye to consolidate yf it be layde vpon the other two pouders afore-sayde, or on eyther of them in maner of a plaster, when they are myngled wyth the greene Baulme as is afore-sayde in their places.

Cataplaſma D. Gul.

Buttees ad phlegmones.

Take a fatte peece of bealle, or a Capon and boyle it in water and whyte wyne, then ſtrayne it from the fleeſhe, and ſet the ſame licour ouer the fier agayne, and put thereto.

Maluarum, M.ij.
Fol. Violarum
Solatri, } ana, M.j.

Boyle them tyll they be ſofte and tender, and then take it from the fier, and powder awaye the licour, and ſtampe the herbes fyne in a morter and put thereto, Barley mealle aſmuch as ſhall ſuffice to make it lyke a Cataplaſme or Pultis, accordyng to arte.

Cataplaſma eiuſdem ad dolorem ſedandum.

Rec. Maluarum,
Fol. Violarum, } ana. M.ij.

Florum

Florum chamomille
Foliorum roſarum, } ana.M.j.

Boyle all theſe in mylke tyll they be ſofte and tender, then put them in a mozter and ſtampe them ſmall and put thereto.

Vnguenti roſarum, } ana, j. vnce
Vnguenti populij } and a halfe.
Vitella ouorum, numero ij.
Farinæ hordei, tvvo vnces.

Incozpozate all theſe together, and when you ſhall occupie it, ſpzede it thycke on a clothe and warme it agaynſt the fyer, and yf there be anye harde indurate matter in the member, then put there to the mucylage of marche Malowe rotes and Seminis pſylij ana. halfe an vnce.

Cataplaſma Diaphoreticum D. Gul. Cunynghami Medici.

Rec. Foliorum Sambuci,
Saluiæ,
Rutæ,
Althex,
Chamomilli, } ana.M.ij.

Brouse and cutte these smalle, and boyle them in the decoction of Lyneseede and Fengreeke: And when they haue boyled vntyll they bee tender and softe, adde to them.

Olei irini,
Anethini,
Castorij, } ana.j.vnce & a halfe.

Boyle them agayne together, and make a Cataplasme accordyng to arte.

This Cataplasme is good to resolue and mollifie all hardnesse of ioyntes, and grosse and slymye humours whiche are impacte in the same. Therefore it is profitable in passions of the ioyntes, Chiragra, Podagra, & Sciatica, and suche lyke. Also it maye ryght well be vsed in coulde tumours infestynge the musculous partes of the armes and legges.

Aliud valentius eiusdem.

Rec.

Rec. Radicum & foliorum Ebuli, Althęæ. } ana. M. j.

Foliorũ Rutæ, Sabinæ, Pulegij, Sambuci, } ana. M. ſe.
Chamęmeli, Meliloti, } ana. M. ij.

Boyle theſe beynge cutte and brouſed in one parte of Malmeſey, and thꝛee partes of Dyle of Chamomille vntyll they come to the ſubſtaunce of a Cataplaſme. ꝛc.

Thys Cataplaſme is of lyke vertues with the other goynge beſoꝛe, ſauynge that it is of greater foꝛce and ſtrengthe in the effectes beſoꝛe remembꝛed. ꝛc.

Cataplaſma anodynum noſtræ inuentionis.

Rec. Foliorū Iusquiami, } ana.j.M.
Violarum, }

Boyle them in water vntyll they bee softe, then stampe them fyne and adde to them,

Panis puriss.	one pounde,
Lactis,	one pounde,
Olei rosati,	three vnces.
Vitella. ouorum numero iij.	
Croci,	one scruple.

Make hereof a Cataplasme accordynge to arte.

This Cataplasme or Pultas, is verye excellent in ceasynge of paynes in the goute of cholericke personnes, where great inflammation is, and in a sensible and tender bodye. For it doeth bothe asswage payne, and remoue swellyng in shorte tyme, if the bodye be well prepared before.

Cataplasma Rogerij.

Rec. Farinæ fabarum, one pounde,
Furfuris subtiliter pulueriſati, ij.M.
Stercoris caprini, one pounde,

Chamo-

Chamomilli,
Meliloti,
Abſynthij, } ana. M. ſe.

Stampe your herbes fyne, and boyle them all togeather wyth ſufficient whyte Wyne and Lie of Barbars. Boyle it vntyll it come to the forme of a Cataplaſme, and applye it ſo whote as the Pacient maye ſuffer it. This Cataplaſme is of great reſolution in wyndye matters of the ioyntes, for it doeth reſolue and diſperſe the wynde and watcrye matter, and ſpecially if you put to it a lytle Cummen in fyne Pouder. Some vſe to putte in moore Wyne and Lie, and no Beane meale nor Bzanne, and ſo boyle it with herbes and other thynges as is befoze ſayde. Then ſtrayne it and with the lycour beynge whote, and ſpongies applyed to the iunctures, and ſo rolle it accozdynge to arte. I haue ſeene thys doe verye well.

Aliud Cataplaſma.

Rec. Foliorũ Maluarum,
Violarum,
Mandragorę,
Iuſquiami, } ana. M. j.

Radicis Althęæ
Seminis Lini,
Fœnogręci, } ana. ij. vnces.

Florũ Chamomeli,
Meliloti, } ana. j. vnce.

Boyle all your herbes in potage without Salt, then stampe them fynely & put to the rest of your thynges in Pouder. Then boyle all together with the brothe aforesayde. And make thereof a Cataplasme accordynge to arte.

Thys Cataplasme is verye good to sease inflammations and payne in mixte matter bothe of Bloode and Choller, yf you adde to it vnguentum Popu-
leon two vnce.

Waters

Aqua Balſami.

Rec. Terebinthinæ, foure pounde.
Olibani, tvvo vnces.
Ligni aloes, tvvo dragmes.
Maſtiches,
Garyophillorum,
Galange,
Nucis muſcatę,
Cinamomi, } ana, one vnce and a halfe,
Gummi elemi, ſyxe vnces,
Aloes hepaticę,
Laudini,
Caſtorij,
Radicū cōſolidæ minoris
& Maioris, } ana ij. vnce
Foliorum hyperici
Betonicæ,
Chamępitios, } ana. M. ſ.

Aquæ

Aquæ vitę foure tymes ſtylled, ſyxe pounde.

Make all thoſe thynges in pouder that you can make in pouder and myxe them well with the reſte. Then put them all into a bodye of glaſſe wyth the Aqua vitę and let them ſtande ſo the ſpace of ſeuen dayes cloſe couered. Then ſet them to ſtyll wyth a ſofte fyre accordynge to arte. Fyrſte you ſhall haue a clære water called water of Balme. Whyche you maye receyue a parte. And when the colour of the water changeth ſome thyng to yellownes then kepe that water a parte. And put vnder another receauer to take the nexte lycour, whych wyll be lyke to a yellowe water, then you maye increaſe your fyer by lytle and lytle, tyl you perceiue droppes of oyle come forthe, which oyle wyll be yellowe alſo, then you maye remoue that receauer and put vnder another to take the Balme, which wyl come after that oyle and water, whyche Balme wyll be more thycker and redder then the Oyle, and it wil come of it ſelfe, wythoute water, thys Balme is verye precious, and is called Artificiall Balme. Nowe the Oyle that I ſpoke of before, that came wyth the yellow

water

water, is called the Dyle of Balme, and it wyll swyme aboue the water, so that you maye deuyde it from the water at your pleasure. And thys Dyle is moste precious in paralices, and spasmus, commynge of colde matter, as I haue manye tymes proued, the water of Balme is verye precious, and olde Alchimistes, dyd distyll it agayne with raygne water, so muche of one as of the other, and called it the Ladye of all medycynes, for it is of greate vertue in resystynge the plague poyson, and manye other thynges, yf it be taken wyth Ale, Bere, or Wyne, fastynge the quantite of syxetene or twentye droppes, in one sponefull of anye drynke aforesayde, but I haue vsed it for a remedye agaynste the Plague, after thys maner, take of the leaues of Rue, Wormewoode, Scabyous, Turmentyll, Marygoldes and Dragans, of ech two vnces, and putte them into one quarte of the water, so dystylled wyth Rayne water the space of three dayes, and in that tyme the water wyll take all the vertue from the herbes so that it shall not haue the vertue of those herbes, but all the vertue it had in it selfe before, and thus I vsed it to the greate profyte and sauegarde of manye,

nye, yf I shoulde wryte of all the marueylous thynges, that I haue done wyth thys water, Oyle, and Balme, it were to be maruayled at, and yet moste true, As concernynge the vse and commodytye of them, you shall fynde in dyuers of my bookes as cause doth require.

Lac virgineum.

Rec. Lytarge of Syluer in fyne Pouder three vnces, of good whyte Veneyger halfe a pynte, myxe them together, and distill them by a fylture or thorowe a lyttle bagge, or by a peece of clothe, take of the same water myngle it wyth water of salte, made wyth one vnce of salte poudred and halfe a pounde of Rayne water or well water, and myngle these waters together, and it wylbe whyte lyke mylke, and with thys rubbe the corrupte place. Some addeth a lyttle Ceruse wyth thys Lytharge whyche is good

for

for all rednes of the face.

Aqua corrodens.

Rec. of Sal alkali, or yf ye can not haue that, take Sall Armoniacke and vnsleecked Lyme ana. one pounde, and beate them to fyne pouder, and putte them in an earthen potte whych hath holes in the bottome lyke to a collander and presse them stronglye downe, so that the water maye not swiftlye paste thorowe, and power vppon them, so muche water as wyll couer it a finger hyght aboue the pouder, and so suffer it to drope or straine thorow, and put vnder it a receptacle to kepe the water, & when all the water is runne thorow, renewe, or take new lime and newe salt as is aforesayd, and let the foresayd water runne thorow the same, and keepe that water for your vse. Thys water is good in manye operations it wyl cauterise like an whote yron, and it is good in fistulaes and to manye other thynges, if ye adde to thys of Marcurie sublimmate in pouder one vnce, it wyll bee the better, and chiefiye in Chameleontiasi, where the bones be corrupted.

Aqua Mercurialis.

Rec.

℞. Mercurij ſublimatj, } ana, halfe a
Salis armoniaci, } pounde.

Grynde them verye fyne vppon a moller ſtone bothe together wyth out anye other lycour, and put them in a ſtronge Glaſſe, that wyll a byde the fyer. Then take a newe earthen Potte, and put aſhes into it, the thyckeneſſe of one fynger. Then ſhutte your Glaſſe in the Potte, and fyll vp the Potte wyth aſhes rounde aboute the Glaſſe, ſo that the Glaſſe maye ſtande ſofte within the Potte. Then put your Potte wyth the Glaſſe ſo ſette in it, into a Forneyſe, and make vnderneath it a fyer, and cloſe the mouthe of the Glaſſe wyth ſome lynnen clothe, not to harde for breakynge of the Glaſſe, and ſometyme open it to gyue vente. And you ſhall knowe when it is boyled inoughe, by puttynge in of a knyfe or ſome other inſtrument of Iron, and if it bee boyled inoughe, it wyll cleaue to the knyfe or inſtrument like to molten Piche. Then take it from the fyer, and let it ſtande vntyll it bee colde, then breake the Glaſſe, and take the ſubſtaunce that you fynde in the ſame Glaſſe, and make it in fyne Pouder ones agayne vppon a moller ſtone. Then let it ſtande a dayes and a nyght

in

in an earthen veſſell putte a broade very thine that it maye take the ayer and become moyſt, then put it in bagge and hange it vppe that it maye droppe into a veſſell of glaſſe, and that water wyll be verye cleare, and is called Aqua mercurij. Thys water maketh Copper whyte, and all other mettalles, and is of a meruelous operation it wyll cure a fiſtulay yf it be putte to the bottome thereof by arte, for it taketh awaye the harde fleeſhe whyche letteth the fyſtulay to be made hole.

Aqua ad oris Vlcera.

Rec. Hordei excorticatę, M.j.
Foliorum Saluię, } ana, M.j.
Violarum, }
Roriſmarinę, M.ſ.
Mellis. foure ſponefulls.
Aluminis, tvvo vnces.

Boyle all theſe together in one gallon of water tyll the better halfe be conſumed, then ſtrayne it, and lette the ſycke man continually

waſhe hys mouthe wyth it warmed tyll he be whole, it is good for thoſe that hathe a ſore mouth which cometh by reaſon of applying the vnguent vſed in Chamęleontiaſi, in whiche vnguent Argentum viuum is put, and the more the paciente ſpetteth and waſheth the better it is.

Alia aqua pro eodem.

Rec. Roriſmarinę, } ana, M.iiij.
Saluię }
Lupinorum, M,ij.
Aluminis, foure vnces.
Mellis, halfe a pounde.

Boyle all theſe together in foure gallons of water, vntyll the halfe be conſumed Then let it ſtande vntyll it bee colde, and ſtrayne it, and keepe it in an earthen Pot to your vſe. This water ſerueth for the lyke purpoſe, that the other aforeſayde ſerueth for, and is a great excicatiue. It healeth Cankers in the mouthes of the chyldren, s in olde folkes

folkes also, if it bee mixed with vnguentum Egiptiacum, more or lesse accordynge to the disease. It is good also to washe cankerous vlcers, yf you put thereto a lytle Egiptiacum aforesayde. For it preserueth the Vlcer from putrefaction, yf other conuenient medicines bee applyed therewithall. It dryeth vp also olde soores beynge mixed as is aforesayde, yf they bee not deepe in the flesshe, manye other good properties it hath, whiche you shall fynde by experience thereof.

Aqua ad mundificandum vulnera, noſtræ inuentionis.

Rec. Agremoniæ,
Hyperici,
Centaurij,
Abſynthij,
Scabioſæ,
Craſſulæ maioris,
Radicis Symphiti } ana. j. M.

Stampe all these well, and lette them boyle wyth one Gallon of water, and one pottell of whyte Wyne, and Sugre halfe a pounde, vntyll halfe of the lycour bee consumed. Then straine it, and keepe it to your vse.

Thys Water muste bee conueyed into the deepe places of woundes or vlcers wyth a syrynge, made so warme as the Pacient maye suffer it. And if you wyll haue it of greate mundification, adde thereto Mel rosaram. And yf you wyll haue it of greater excication, and some thynge to coole and putte awaye inflammation, adde vnto it when you wyll occuppe it, halfe so muche Plantaine water, or Nyghtshade water wherein a lytle Alume is boyled. This water is excellent in operation, for it clenseth from the depe parts all corrupte and fylthye humours, and causeth the other medycines that are applyed to the sore places to take the better effect in their operation, you maye myngle also wyth thys decoction vnguentum Egipciacum or the pouder of marcurye precipitate accordynge to your discretion. Prouided alwayes that all other good inuentions required in the arte of Chirurgerye be obserued and kepte and chiefly the euacuation of the matter, that they growe of, or that mayntayneth them, and also to keepe suche diat, as is meete for the

curynge

curynge of that deſcaſe.

Potio ad vulnera conglutinanda noſtræ inuentionis.

Rec. Polipodij quercini, foure vnces.
Criſulæ maioris,
Pirolæ,
Anance,
Piloſillæ,
Veronicæ } ana.ij. vnces.
Soliſsequij,
Agrimonię, } ana,j.vnce.

Chope all theſe herbes ſmall, and putte them into a newe earthen potte, and putte thereto one pottell of the beſte malmeſſe that you can gette, and one quarte of water of Scabioſe, and ſeethe them in Balneo mariæ, by the ſpace of thzee houres together, and in anye wyſe lette the potte be cloſe couered and paſted aboute wyth ſome dowe and bzene, that no bzeath go fozth, and yf the wounde be in the head put in a lytle Sage, Betonie, and Lauander ſpicke, and yf it be in the bzeaſt and thzoughs the lounges, putte in a lyttle Lycozice, Iſope and Enulacampane roote, yf it be aboute the

raynes put in a perslay rote and a fenell rote, when all these thynges are boyled togethee Let it stande by the space of one nyghte after, then open the Potte and straync forthe the licoure, and putte thereunto of fyne Suger foure pounde, and boyle it a lytle agayne. This drynke is moste excellent for the curynge of woundes that bee in the bodye or thorowe the bodye, for it healeth them in shorte tyme, and consumeth alwaye the bloode that is within the bodye withoute anye greefe or payne, in a maner they neede no other remedyes. For if they washe the wounde with thys same drynke a lytle warmed, and laye a weate clothe vppon the wounde foure or fyue double, weate in the same drynche, it wyll heale it in verye shorte tyme wythoute anye other medicine, drynkynge euerye morynge and euenynge foure vnce at eyther tyme of thys same drynke warmed.

Thys drynche hath bene well proued in the warres bothe by sea and lande, by me Thomas Gale Maister in Chirurgerie in the Citie of London. Prouided alwayes that the Pacient bee kepte soluble, and vse a verye small dyet, vntyll the seuenth daye bee past, and so to bee well gouerned in all other thynges appertaynynge to hys healthe, accordynge

dyng to the arte of Chirurgirie.

Alia potia pro eodem noſtræ inuentionis.

Rec. Hordei excorticati,
Agremonie,
Hiſſopi,
Bethonicæ, } ana.M.ſ
Polipodij,
Symphiti,
Plantaginis, } ana.M.j
Centumnodiorum,

If you may not haue theſe herbes grene, take them drye, you muſt put in alſo.

Hypericj, } q.ſ.
Scabioſæ,

Woyle all theſe herbes together wyth your Barley, in three pottells of water wyth foure ſponefulles of Honnye, till the better halfe be conſumed, then lette it ſtande tyll it be colde and ſtraine it, Thys drinke muſte be vſed

mornynge and euenynge warme at eche tyme syre vnces , wyth thys he dyd maruaylous cures and healed them in shorte tyme , for thys drynke defendeth the wounde from euyll accedentes , yf the paciente keepe good diat,and other thynges necessary for his health as is sayde before.

Aqua decoctionis ligni Sancti nostræ inuentionis.

It is to be consydered that there be thre sortes of thys woods, that is to saye that, that is verye olde,that,that is meane and not olde,and that which is yonge and the bowes of the trees, and euerye one of these dothe differ in qualitie from other , for that,that is yonge wyth the braunches also, are of a more moyst & ayrie substaunce , then the other two be , and that that is olde is more harder of degestion and and slower in hys operation , and longer or anye cure maye be done wyth it,wherefore we doe commonlye vse that, whyche is yonge and whytest wyth the barke of the same,for it doeth not drye awaye , the naturall moysture of mans bodye,so sone as the olde dothe, and that

is

is by reason of hys moystenes, yet in hys pro-
pertie he dothe as muche as the other, the olde
and blacke woode is good to make oyles and
suche lyke thynges, eyther by decoctions or
by distillations, for it is more fatte and Gum-
mi then the other is, except it be rot-
ten and then it is not good in medycynes.
Thys woode hath a synguler propertie against
Chamelcontiasin, and also agaynste manye
other moyste and rumiticke sycknesses, for it
letteth putrifaction, and altereth the euyll
qualityes of the humours, it comforteth the
stomacke, and openeth the obstructions of
the liuer, and moueth the bodye to sweate, and
helpeth nature to putte forth manye perrilous
and contagious vapours by the powers out-
wardlye. Also that whyche is the oldest beynge
boyled in decoctions and other wayes, by arte
prepared, is verye good for vlcerations, fystu-
layes, ache or paine, beyng applyed accordynge
to the arte of Chirurgerye, as is mencioned in
this booke in diuers places. And fyrste of all
to make the decoction to drinke inwardlye, you
shall vse the yongeste woode or the braun-
ches wyth some parte of the barke of the same
as it foloweth here.

Take one gallon of faire water, and putte it
in to a newe earthen potte, the whyche maye

holde three gallons of water , or two gallons and a halfe at the leste , and put therevnto of the yongeste woode afore sayde wyth some of the barke, one pounde in pouder , Lycorice browsed two vnces . Set them vppon a fewe coales , the potte beyng close couered tyll it be verye whote , then take it of the fyre and lette it stæpe twelue houres . Then boyle it vppon a softe fyre , the potte beynge close couered , that so lyttle of the ayre maye passe awaye as is possible tyll the halfe be consumed , then strayne it and putte it into a faire vessell . Thys is the stronge drynke wherche they maye drynke of mornynge and euenyng at eche tyme eyghte vnces , and euerye morneyng the sycke person to sweate after that he hath taken of the same drynke, by the space of two houres . And for the seconde decoction wherche he muste vse wyth hys meate you must putte to the same wood that you straine from your fyrste decoction so muche water as you dyd before , and lette it stande and steepe as is aforesayde in the same potte , by the space of twelue houres, and then boyle it tyll the halfe be consumed as ye dyd the other before . In weake bodyes and colde we haue vsed to putte in the fyrste decoction one pint of malmesye or Sacke , a lyttle before that it be taken from the fyer , and in the latter drinke

we haue vsed to put in racke Renishe Wyne. But in the stronger bodyes and those that bee not so weake, we vse to geue it alone wythout Wyne. The bodyes muste bee well prepared before they take thys drynke, or enter into the rules of this diet, by the space of twelue or foureteene dayes, in the whiche those humours maye bee purged that doe hurte the bodye or Mainteyne the disease, and then when the bodye is well purged, they maye enter into the same dyet, geuynge them no other drynke, but thys same abouesayde, and deminishynge their meate by lytle and lytle, tyll the sixe daye bee paste, then let them haue so lytle meate as they maye lyue wythall, for if they shoulde take muche meate, nature shoulde bee so occupyed about the disgestion of the same, that it should not be able to ouercome and digest the sycknes other elles, suche quantitie of humours might growe thereof, that myght styll maynetayne the disease. Yet neuertheleste those that bee cholericke bodyes maye take mooze meate and moyster meates, then those whiche bee phlegmaticke and moyste bodyes. Generallye theyr meates muste bee rosted, and of good nourishment, and easie to digest, as Potten, Veale, Capons, Rabettes, Chickens, Fesons, Partriches, blacke byrdes, Thrushes, and other small byrdes of the Woode.

This muſte bee onely their meate, and roſted withoute ſalte, excepte in cholericke bodyes that bee lyke to fall into ſome feuer, they maye haue theyr meates boyled, and eate them with a lytle Meriuſe. In phlegmaticke bodyes they maye forbeare their ſupper, and holde them content with one meale a daye, except at nyght a fewe Reſons and blaunched Almons. But Cholericke bodyes muſte haue ſome meate at nyghte to ſatiſie their ſtomacke wythall, becauſe they wyll ſooner digeſt it, and hath no ſuche quantitie of moyſte humours, as the Phlegmaticke or Sanguine perſone hath. Theyr bread muſte bee onelye Biſkitte, made wyth a fewe Anyſeedes and Sugre withoute Salte. They maye take of thys bread moore or leſſe accordynge to the ſtrengthe of theyr ſtomackes and complexion, as is aforeſayde. This dyet or order muſte bee kepte by the ſpace of fourtie or fiftie dayes moore or leſſe, accordyng to the neceſſitie of the ſicknes, and euery ſixte day the body muſt be purged with ſome gentle medicine mete for the diſeaſe, and for the complexion of the man. That day that they take their purgation, they maye not drynke their drynke nor ſweate in the mornynge, nor no tyme that daye, all other dayes they muſte ſweate, for in ſweating is the chiefeſt matter, that is required in the maner of

cure,

cure. They muste vse all other maner of ne-
cessarye thynges, as slepynge, quietnes good
companye and a conuenient place, and a-
boue all thynges to be kepte close in all tyme
of their cure, leste that the ayre might enter in,
and stoppe the powers and let them to sweate
and doe them other displeasures.

Thys manes of curynge is moste praysed
of many of our latter wryters and chefly of one,
Hutton a Germayne, of Necholas Massa, Io-
annes Baptista Montanius Anthonius Gallus,
Alfontius farariencis, Anthonius Musa, Mu-
chellus belogenis, Leonardus Fuchsious, Ioan-
nes Tægaletius, Dominicus Leanus Luencis,
and of manye other moe which were very long
here to rehearse, they haue writen all in the
commendations of the wood but in effect, they
haue concluded in the vsyng of it, as I haue
made mention here aboue. And I my self hath
found great profit & gotten great worshyp ther-
by, I inuented my self a syrope, which I made
with this same decoction stronglye boyled wyth
suger, so much in weight of one as of the other,
boyled till it come to a syrope, with the whyche
sirope I did many great cures, and chefly when
the patient was very weake, as you shall synde
more hereafter in my bokes. And thus we end
this chap. for ỹ which ỹ name of god be praysed.

Potio

Potio ad vulnera recentia Brunſvvicenſis.

Take Iuie leaues or Edera arborea, growynge on an Oken tree foure vnce, Wynter greene, ſmall and great, or Pirola in Latyne, Hanicle or Diapenſia, Syndan, Herba fortis, or Veronica, ana. two vnces. Herba ſolſequy, one vnce. Choppe all theſe together verye ſmall, and putte them in a Peuter Potte, and putte thereto foure pounde and a halfe of the beſte Wyne, and of Water one pounde and a halfe. And ye ſhall ſeeth them in Balneo mariæ, three houres longe wythoute tarynge of the leede of the potte, then on the morrowe after putte thereto eight vnces of ſuger: yf the wounde be in the heade then putte thereto Betonie two vnces, Sage one vnce, Lauander halfe an vnce, and yf the wound be in the breaſt, then putte thereto, Licoriſe, two vnces, Polipodij one vnce, Iſope halfe an vnce, and yf the patient be feble & ſore then put thereto bugloſſe flowers, borage flowers ana, one vnce Roſes half an vnce: then yf the patiente haue greate heete putte thereto Violettes two vnces flowers of nenufar half an vnce, yf the wounde be on the lefte ſyde

do thereto liuer woyt one vnce, matrifilue half an vnce, also yf he be not soluble, then it is nedfull to putte thereto, Sene leaues Cassiæ fistulæ ana, two vnces, and yf he be depe wounded, then put thereto Celidonye rootes, foure vnces and gyue it hym to drynke at morynge at noone and at euenynge, and at euerye tyme foure vnces.

Alia potio eiusdem, pro eodem affectu.

Rec. Matrifiluæ,
Piloſillæ,
Nauſturtij,
Brunellæ,
Plantaginis, } ana. M.j.

Rutæ,
Matricariæ,
Chelidoniæ, } ana. M.j.

Herbæ ſaraſenicæ, M. j. ſe.

Diarentiæ,

Diarentiæ,
Herbæ tunici, } ana. M. j.

Saluiæ, M. ſe.

Serpentinæ,
Dictami, } ana. ij. vnce.

Caſtorij,
Mumiæ
Myrrhæ,
Abſynthij, } ana. halfe an vnce.

Put all theſe together in a Potte with good whyte Wyne, and couer the Potte wyth a lydde, and cloſe the lydde with Doughe, and in the lydde make a ſmall hole and ſtoppe it wyth a tappe of Wood, and let it ſeeth tyll the thirde parte bee conſumed, and drawe the tappe ſometyme out, that ye may ſmell when it is inough. Of thys geue the Pacient to drynke at morynge and euenynge a ſpoonefull, and though the Pacient bee metely in health, yet ſhall he not drynke the leſſe, and he ſhall in his daylye drynke meddle three or foure droppes of the ſame.

Aqua imperialis contra peſtem.

Rec.

Rec. Radicis brioniæ,
Gladiolæ,
Angelicæ,
Turmentillæ,
Lapatij,
Draguntij maioris & minoris, } ana.ij.vnces.

Corticis fraxini,
Guaiaci, } ana.j.vnce.

Gather your rootes in Marche, and pyke them cleane, then stampe them with the Barkes aforesayde, and putte them in stronge Malmesey the quantitie of fowre pounde, or a Pottell in a close potte. So let them stande infuse vntyll the latter ende of Maye, then gather these herbes folowyng.

Foliorum scabiosæ,
Betonicæ,
Minthæ,
Verbenæ,
Turmentillæ,
Calendulæ,
Pimpenillæ,
Rutæ, } ana. M. ij.

Foliorum

Foliorū Angelicæ,
Dragantiæ,
Abſynthij,
Saluiæ, } ana. M. iiij.

Hyperici,
Pioniæ,
Valerianæ,
Endiuiæ, } ana, M. j.

Bruſe all your Herbes and putte them infuſe in one quarte of ſtronge Vinegre, one quarte of Roſe water, and one quarte of good whyte Wyne three dayes. Then ſtyll them in a common ſtyll, and keepe thys water to your vſe, for it is moſte precious againſte the Peſtilence beyng mixed with good Metridatum or Triacle, and geuen syxe ſponefull euerye daye bothe to the ſicke and whole.

Aqua corrodens alia.

Rec. Salis gemmæ,
Salis alcali, } ana. iij. vnce.
Aluminis ſciſtilis, vj. vnce.

Make theſe in fyne pouder, and put them in a Gallon

Gallon of ſmithes water, and boyle them on the fire, & reſerue this to they vſe. This is very good againſte filthy, & rotton vlcers hauynge inflammation ioyned wyth them, as experience, both hath and can teſtifie.

Aqua nobilis in oculorum vitijs.

Rec. Fęniculi.
Rutæ.
Betonicæ.
Chelidoniæ. } ana.ij.M.
Verbenæ.
Euphragiæ.
Roſarum rubearum.xij.M
Ligni ſancti lib. ſſ.

Broſe theis, and put them in a newe earthynge potte wyth a quarte of whight wyne. Let theis be thus infuſed. tj. dayes, after put to them.

Alumnis. vnce. iij.
Salis gemme. vnce. ij.
Maſtiches. } ana.one vnce.
Vitrioli. }

Olibani
Myrrhæ. } ana.j.vnce. ſ.

Make theis in pouder, and put them wyth the other percelles in to a ſtill of glaſſe, and put his heade on it, & lute them well together, and ſet a receptory alſo to it, wel cloſed to the ſpoute of the head, ſo let them ſtande one daye, after deſtill them in Balneo Marie, accordynge as art requyreth.

This water remoueth the whight ſpottes in the eyes, and reſtrayneth the flux of humours with haue recourſe to the eyes, and is right excellent in other greſes of the ſame. as hath ben certeynlye tried not longe ſens in a childe of the worſhipfull Maiſter Gunſtones of London, whiche haunynge ſore eyes, and diuers ſondry medicines to them applied, dyd nothynge preuayle, but brought the eyes to worſe: caſein ſo much that ſome learned in phiſicke counſiled the parents to bore the ſkynne of the necke throughe, with an hote yron, that the humours aſcendynge myght breath out, or els to pourge the heade with pilles, and at the leaſt to make diuertion of humours. But in fine, nothynge preuayled, and ſo the chylde was lefte to the worke of nature. Then maiſtres Gunſtone, ſeinge

inge her childe voyd of helpe, and comforte, was yet not in dispaire, but hoped that God would sende som remedye. So she found an olde boke, in whiche this water aboue sayde, was conteyned, and for the perfecter distillynge therof she dyd require my helpe: whiche wyllynglye I graunted and distilled the water, of whiche. iij. or. iiij. tymes she dyd droppe a litle in to the childes eyes. by whiche vse and continuance the inflammation was put awaye: the flur of humors stayed, the whitte spottes and webbes consumed, & the childes eyes restored (thanked be God) to ther perfecte helth and sight. whiche water for the excellency and noble vertues, I thought good to set out for the cõforte of such as shall haue the lyke infirmitie. I haue wyth this water done many good cures sence that tyme, and haue of my selfe addyd to it, more then was in Syr William Firmynghames booke, who was well lerned in Chirurgirye, and authour of this water) the roses and lignum sanctum. he florished in the yeare of grace. 1475.

Alia aqua præcioſa in ijſdem oculorum morbis.

Rec. Fœniculi
Verbenæ.
Saluiæ.
Agrimoniæ.
Betonicæ.
Rutæ.
Chelidoniæ.
Eufragiæ.
Calaminthæ.
Pinpinellæ.
Scabloſæ.
Chamædryos. } ana.j. M.

Roſe your herbes, and put to them on quart of whight wyne, and a pinte of water of red roſes, alſo adde.

Aluminis,	iiij.vnce.
Tutiæ.	ij.vnce.
Caphuræ.	iiij.dragmes.

Make theis in pouder, and deſtill them in a comon ſtill, and whan you haue ons diſtilled them put the water vpon the feces, and deſtyll it againe

it againe, and then reserue it to they vse. This water is ryght precious in rumatike bodyes, and inflammations of the eyes, and other lyke affectes.

Aqua sine pari.

Rec. Aquæ vitæ quinquies distillatæ. iiij. li.

Salis vsti.
Sulphuris viui. } ana. j. pound.
Tartari albi. iij. vnce.
Nucum Inglandis,
Auellanæ. } ana. iiij. vnce.

Nitri. ij. vnce.
Myrrhæ,
Aloes. } ana. j. vnce.
Gariophyllorum.
Nucis muscate. } ana. j. vnce. ſl.
Corticum limonũ.
arangiæ. } ana. vj. vnce.
Betonicæ.
Verbenæ.
Agrimoniæ.
Hyperici. } ana. j. M.
Fæniculi.
Valerianæ.
Scabiosæ.

Rutæ.

	Rutæ.	ana. M.j.
	Absynthij.	
	Menthæ.	
	Radicum angelicæ.	ana. j. vnce and halfe.
	Zedoariæ.	
	Tormentillæ.	
	Acori.	
	Florum geneſtæ.	iiij. vnce.
	Roriſmarini	ana. ij. vnce.
	Camomillæ.	
	Theriaces optimæ.	iij. vnce.
Sem.	Aniſi.	ana. j vnce and halfe.
	Peoniæ.	
	Petroſelini.	

Wyose thoſe that are to be bruſed, and put al together, and let them ſtande. vi. dayes, after diſtil them accordynge to arte, and if that you doe agayne deſtill them on the feces ones or twyſe, you ſhall make the water of muche more effecte and vertu.

It is excellelent againſte venome, poyſon, and peſtilence, it doth kepe the humors & bodye from corruption and putrifaction, and that experience can right wel teſtifie. The proportion or quan-

or quantitie is to gyue one ſponefull wyth a
ralie or twoo of manus Chriſti, or in cholorike
& ſanguine complections, and hotte regions,
tymes of the yeare, wyth Syropes of bugloſſe
or violettes. &c.

Thus endeth the Anti-

dotarie, compiled and publiſhed by
Thomas Gale, Maiſter in
Chirurgirye. 1563.

12. Augu.

FINIS.

A Table to the fyrſte Booke, called the Inſtitution of a Chirurgean.

GVIDOES Diffinition of Chirurgerie. folio. 2. & 3.

Therapeuticon, is that part of the Arte, whiche cureth mannes bodye with medicines eyther inwarde or outwarde. folio. 2.

Galens diffinition of Chirurgerie. folio. 3.

Phiſicke and Chirurgerie, are both one Arte, as it appereth by *Hypocrates*, and *Galen*. fol. 3.

The ſmall eſtimation of Chirurgery, comes by the reaſon of the vnlearned emperiks, and rude ſorte that vſeth the Arte. fol. 4 & 11.

Celſus ſayth, Chirurgerie is the Auncienteſt part of medicine. fol. 4.

No man can be a perfect Chirurgean except he knowe the Anotomie of mannes bodye perfectly, w̄ all their temperatures. fol. 6. & 7.

The ende of Chirurgerie is to reſtore mans body to health. fol. 7.

What manner a man a Chirurgean ſhould be. folio. 7.

A Chirurgean ſhoulde bee learned, & brought vp in experience, from hys youth. fol. 8.

Chirurgeans ſhould follow ȳ warres to learn experiẽce, As *Machaon*, *Podalirius* and *Achilles* dyd, which were excellent in the Arte. fol. 9.

The rablement of the vnlearned doth occupy the Arte to the ruine of the commō wealth,

to ỹ distruction of many, to ỹ slaunder of the noble Arte, & the great displeasure of GOD. folio. 10.

Chirurgerie wyll neuer recouer againe, except the Prince by lawes amende it. fol. 10.

Science hath no greater enimie thã ignorance. folio. 10.

Guido requireth foure things in hym that is or should be a Chirurgean. fol. 11.

Instruments both medicinal and instruments of metall parteining to the Arte. fol. 12. 15.

Of a man wounded thorowe the breste with a swoorde and made hole. folio. 12.

A great errour of the Empricks to be noted. folio. 13.

Instrumentes common and proper. fol. 13. 15.

A notable storye of one hurt wyth a Horse. folio. 14.

Howe a Chirurgeã should proceede in hys Arte. folio. 15.

A Chirurgian if hee will rightlye cure, musste knowe things natural, not naturall, & against nature. fol. 16.

The two causes of sicknesse. fol. 16. 17.

Of three kindes of syckenesse, according to the partes of mannes bodye. fol. 17.

The accidence of sickenesse. fol. 17.

A Chirurgean being ignorant in the disease cãnot minister a right medicamẽt by knowledge. fol. 18.

The principall diseases pertaining to ỹ Arte of Chirurgerie. fol. 18.

The. iij. Instruments to cure these griefes w̃, as dyet, inward medicines & outwarde medici-

dicines. fol.3. 12. 13.
The differences betwixt a Tumer and an Appostume. fol.18. 19.
Of the iiij. famous Tumers againste nature. folio. 20.
Tumers beyng myxed hath names according to theire myxtures. folio. 20.
What profite commeth to the Chirurgean in knowledge of the mixture of these humours in tumers against nature. fol.21.
Of Sanguine tumers that are referred to *Phlegmon*. fo.21.22.23.24.
Of colericke tumours, which be of affinitie wt *Erisipelas*. fol.24.25.26.
Of phlegmatike tumors that are referred to *Oedema*. fol.26.27.28.
Of Melancolye tumers that are referred to *Scirrhus*. fol.28 29.30.
Timpanites and *Triapisn*. folio. 31.
Vitiligo, Leuca, Albaras. folio. 32.
Exanthemata, Morbilli, & Variole. fol.32.
Parotides. fol.32.
Mentagra, Impetigo, Lepram, & Chamelontiasis. folio. 33.
Epiplocele, Enterocele, Enterocepiplocele, Bubonocele & Exomphalos. fol.33.
Podagra, Hiragra, Arthritis. fol.33 34.
The diffinition of woũdes. fol.34.
The differẽces of woũdes. fol.34.
What a simple wounde is. fol.36.
What a cõpound woũd is. folio.36.
What profite commeth to the Chirurgean in knowing the differences of woundes. folio. 36.
A man wounded in the brayne, and made hole

againe. fol.37.
A Chirurgean cãnot applie a right medicine to a wounde, excepte he knowe the nature of the wounded part. folio. 37.
The diffinitiõ of an Ulcer. fol.37.
Whereof an Ulcer doth come. fol.38.
Of six kindes of Ulcers & wherof thei take their names. fol.38.39.40.
What *Sanies* or matter is, and howe many kindes there be, and their names. fol.39.
What a *Fistula* is, and of diuers kindes therof. fol.40.
Of certaine kindes of Ulcers named *Formicosum, caucrnosum, Teliphea, Chiroma* and *Phagedenicum.* fol.40.41.
What Ulcers be harde to be cured, and which be not. fol.41.
A diffinition of putrifaction, corotion, & digestion. fol.42.
The diffinition of a fracture, & how many kindes ther be. fol.42.43.
The differences of fractures & theire names. folio. 43.44.
The diffinition of dislocations, that is, bones out of ioint, and howe many kindes there be. folio. 44.45.
The principall differences of solution of vnitie or continuitie, that chaunces in mans bodye. fol.45.46.
The operation of a Chirurgean in mans bodye. fol.46.
A good Chirurgeã must obserue vj. things in his Arte. fol.46.47.
The three kindes of stytching wounds and of their commodities. folio. 47.48.49.
Of viij. manner of tents and of theire vse and cõmo-

cõmodities. fol.49.50.
The making of tentes, and whereof they be made. fol.50.
Of diuers kindes of bolsters and their vse and commoditie. fol.51.52.
Of diuers maner of ligatures and rollings wyth theire profyttes. folio. 52.53.
The conclusion of thys Booke in a fewe lines. folio. 53.54.55.
Of iiij. Notable tables, one for tumers against nature, another for woundes, and one for fractures, and the last for dislocations.

FINIS.

A Table for the .iiii. bokes called Enchiridion.

¶ First an Epistle to the Reader.

The fyrst Booke.

OF the exact & perfect curatiõ of woũdes, made in the simpler partes. fol.1.lib.1.
Of the cure of great and dæpe woundes, and of diuers kyndes of stitching. fol.1.lib.1.
Of woundes in vaines & Arteries. fol.3.lib.1.
Of woũdes in the Nerues and Synnowes. folio. 5.lib.1.
Of woundes in which are fixed thornes, splẽtes, wood, arrowheds gunshot, or such lyke. folio. 7.lib.1.
Of dæpe and hydden woundes, which can-

not bæ well perceyued folio.9. lib.1.
Of woundes in the bones. fol.10.lib.1.
Of curing græne & fresh woũdes wyth Balme folio.11. lib.1.

Finis Libri Primi.

The seconde Booke.

Of curing wounds in the instrumental partes folio.12.lib.2.
Of wounds in the head. folio.13. lib.2.
Of simple woundes in the Head, wythoute the hurte of the bone. folio.15. lib.2.
Of woundes in the head wyth breaking of the bone called *Cranium*. folio.16. lib.2.
Of woundes in the head with cutting of ẏ bone to the inward partes, wythoute losse of anye substance of the brayne folio.17. lib.2.
Of wounds in the head cõtused withoute fracturing of *Cranium*. folio 17. lib.2.
Of the woundes in the head with contusion, & wher the bone is little fractured. fol.18.lib.2.
Of woundes in the eyes and face. fol.19.20.lib.2
Of wounds in the eares and lyppes.fol.21.lib.2.
Of wounds in the nose. folio.21. lib.2.
Of wounds in ẏ mouth. folio.22. lib.2.
Of wounds in the neck. folio.22. lib.2.
Of wounds in the brest. folio.24. lib.2
Of wounds in the belly. folio.25. lib.2.
Of wounds in the bladder, yard, and testicles. folio.28. lib.2.
Of woundes in the partes called *Artus*, containing the armes and legges,

legges. fol.29.lib.2
Of woundes comming thorowe byting of a mad dogge, stinging of a Snake, Adder, Scorpion, and suche like. fol.31.lib.2.
Of wcũds in the thighs, knees, and legges. fol. 30. lib.2.

Finis Libri Secundi.

The thyrde Booke.

OF accidents ỹ chaunceth to wounds. folio. 33. lib.3.
Of dolour in woundes and swaging paine of the same. fol.33.lib.3.
Of Inflamation, and Apostumation. folio.34. lib. 3.
Of the removing & taking away of distemperaunce in wounds. folio.36. lib.3.
Of Convulsion whyche happeneth in wcũds. folio.37. lib.3.
Of the Palsey comming in a wound. folio.38. lib. 3.
Of *Syncope*, or sounding, thorow cause of wcũdes. folio.40.lib.3.
Of alienation of minde. comming by reasõ of a wound. fol.40.lib.3.

Finis Libri Tertij.

The .iiii. Boke

of the *Enchiridion*, comprehending the maner of curing fractures and luxations.

OF the true and perfit cure of fractured bones. lib.4.folio.42.
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THus We ende the fyrſt Tome of our worꝛkes, with the Addition of two Treatiſes, one of Tumers againſt Nature, another of Vlcers. Foꝛ the which the name of God be prayſed. &c.

Imprinted and finiſhed, by Henry Denham, dwelling in VVhitecroſſe ſtrete, for Thomas Gale *Chirurgean.*

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Cum Priuilegio Regiæ Maieſtatis.

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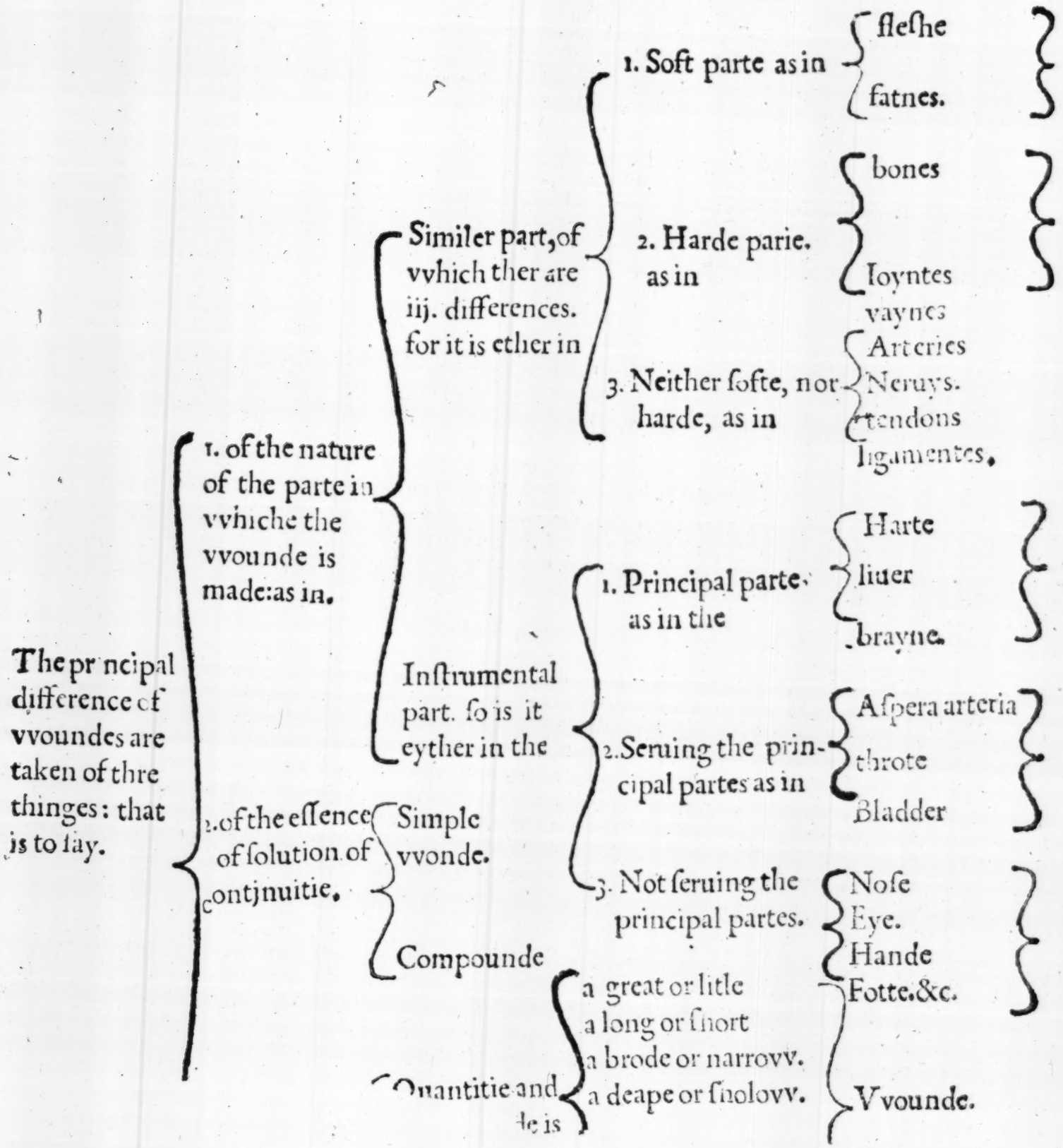
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A profitable Table conteynyng all the differencies of Tumours againſt Nature.

- Euery tumor in mans body is eyther.
  - 1. Accordyng to Nature.
  - 2. Aboue Nature.
  - 3. Againſte Nature of vvhich ther are.iij. kyndes that is to ſay,
    - 1. Humoralis cōming of humors, of vvhich ther are .ij. kyndes.
      - Simple, ther are.ij.kindes
        - Hotte ther are .ij. in number.
          - Phlegmone
          - Eryſipelas,
        - Could. ij. in numbre,
          - Oedema.
          - Scirrhus.
      - Vnto theis are referred certaine other tumours as
        - Vnto Phlegmone: Phygethlon, Bubo, Phyma, Dothienes, Anthrax, Gargareon, Pariſtimia, Aneuriſma, Gangræna, Sphacelus:
        - Vnto Eriſipelas: Herpes, Eſthiomenus and miliaris, Phlyctęnæ, Epinyctides, Hydroa. &c.
        - Vnto Oedema: Atheroma, Steatoma, Meliceris, Hydrocele, Aſcites, Leucophlegmatia, Charas, Broncocele, Hydrocephalon. &c.
        - Vnto Scirrhus: Cancer, Elephantiaſis, Satiryaſmus, Pſora, lepra, Enchimonia, Melaſma, Varices, Sarcocele, Polypus, Verrucę, Acrochordones, Myrmeciæ. &c.
      - Compounde. Springing of many humours myxid ether.
        - Equally.
          - all.iiij. Humors & the tumor taketh name of them all.
            - Blod and Coller. Fleume. Melancholl. & is called Phlegmone & Eryſpelas; Phlegmone & Oedema; Phlegmone & Scirrhus.
          - ij. together as
            - Coller and Blod Fleume. Melancholl. & is called Eryſipelas & Phlegmone. Eryſipelas and Oedema. Eryſipelas and Scirrhus.
            - Fleume and Blod. Coller. Melancholl. & is called Oedema and Plegmone. Oedema and Eryſipelas. Oedema and Scirrhus.
            - Melancholie & Blod. Coller, Fleume. & is called Scirrhus and Phlegmone. Scirrhus and Eryſipelas. Scirrhus and Oedema.
          - Blod. Coller. Fleume. Melancholl. & it is called Phlegmone Eryſipelatodes; Phlegmone Oedematodes; Plegmone Scirrhodes.
          - Coller. Blod. Fleume. Melancholl. and is called Eryſipelas Phlegmonoſum; Eryſipelas Oedematoſum; Eryſipelas Scirrhoſum.
          - Fleume. Blod. Coller. Melancholl. and is called Oedema Phlegmonides; Oedema Eryſipelatodes; Oedema Scirrhodes.
          - Melancholie. Blod Coller. Fleume. and is called Scirrhus Plegmonoſus; Scirrhus Eryſipelatoſus; Scirrhus Oedematoſus.
        - Inequally as vvhan ther is mixed vvith.
          - Flegmons Tumours take their names firſt of the humour vvhiche ſurmounteth in the mixture, and nexte of that vvhiche is vvith it mixed.
    - 2. Flatuoſus vvhich cometh of the vvyndye ſpirites & are. ij
      - Tympanites.
      - Priapiſmus.
    - 3. Varius called becauſe it is ſomtyme of humours, ſumtyme of ſpirites, and ſomtyme of both: ſuche are
      - Vitiligo, Exanthemata, Parotides, Mentagra, Epiplocele, Enterocele, Enteroepiplocele, Bubonocele, Exomphalos, Arthritis, Podagra, Chiragra. &c.

Place this Table in the Inſtitution of a Chirurgian. fol. 21.

AN EXCELLENT TABLE DECLARING the differences of vvoundes.



A profitable Table of vlcers.

- Every vlcer is either
  - Simple
  - compounde

  and the names with difference of theis, springeth. v. sondry vvayes that is to say of

- 2. Humours so be ther iiij. (blod, coller, fleume, Melancholie) and are called of them (Sanguine, colericke, Flegmaticke, Melancholike) Vlcers.
- 1. Sanies & the vlcer is called hereof by iiij. names, for of. (Sanies, Pus., Sordicies., Virulentia.) the vlcer is named (a Sanious, a purulent, a filthye, a virulent.) Vlcer.
- 3. Accidentes or symptomata. as of (corrosion, putrifaction, dolour) the vlcer is called (1. a corroding or phagedenical vlcer; 2. vlcus putridum; 3. vlcus dolorosum.)
- 4. Of sickneſſe as of (intēperatnes, inflāmation, Erysipelas., Cancer, fistula) and taketh to name (Dyscratum, Phlegmonosum, Erisipelatosum, Cancrosum, fistulosum) vlcus.
- 5. Similitude as of (formica, cauerna) it is called (formicosum. vlcus, cauernosum vlcus.) vlcus. & hath diuers names according to the parte it is in as in the (1. Flesh, 2. Vaines, 3. arterie, 4. nerues, 5. cartalage, 6. bones) called (carnosa, venosa, arteriosa, neruosa, cartilaginosa, ossea.)

Place this table in the Institution fol. 41.

A table conteynyng the differences of fractured bones

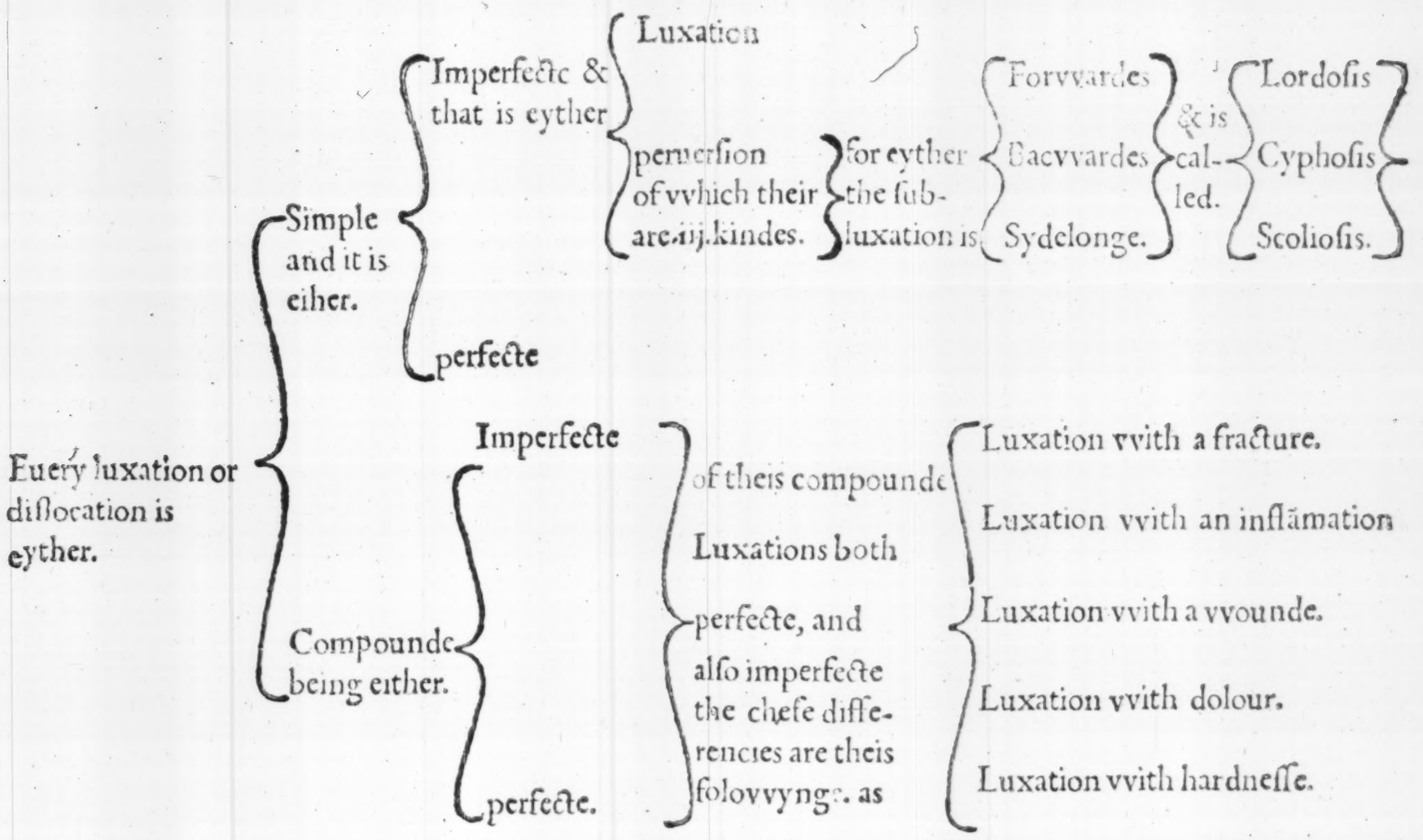
- Euery fracture of the bone is eyther.
  - Simple fracture of the bone of vvhich there are iij. kindes, that is
    - 1. ouervvartes and they are three, that is
      - 1. Cauledon
      - 2. Raphanidō
      - 3. Sicyedon.

      vvhan as the bones are broken liken Stalkes of herbes radiſhe. cucumers.
    - 2. Riftes or fiſſures called Schidacidon.
    - 3. broken in many ſmal peces named Alphitidon.
  - Compounde & ioyned vvith it both.
    - Sicknes as a fracture vvith.
      - a vvounde
      - gangrena
      - inflammation
      - Eryſipelas.
      - intemperatnes. &c.
    - Accident as a fracture vvith
      - Itching.
      - dolour. &c.

Albucaſis nameth other differences of fractures: as a fracture of the Iavves, a fracture of the noſe, a fracture in cranio, a fracture of the ſpine of the back, a fracture of the foſsiles &c. Vvhiche be no true differences of fractures: but rather noteth the part affected.

Place this tabl in the Inſtitution of a Chirurgian. fol. 44.

A Table of Luxations and diſlocations.



Place this Table in the Inſtitution of a Chirurgian. fol. 45.

but the errours of theis are so grose as requireth no aunswere, seinge that throughe suche kindes of incisions, it happeneth the greate vaynes, and arteries to be cut, and so greate flur of blode to folowe, (beside the doulour, and payne whiche foloweth and many tymes losse, and mutilation of the membre) as is in no case tollorable.

Tho. Gale. Truth it is, but touchynge generall instrumentes, those which are in most vse and ought to be had in redynes of the Chirurgian are theis: incision sheares, an incision knyfe, a flewme, a lance, whose pictures you maye here set oute, and all this serue to cut and enlarge a wounde: a cauterizin Iron to cauterize with, and stangh flure of blode: a payre of pincers or nippers, to take of plastres, splegeants and thinges fixid in the wounde, a probe to serche the wounde with. a crockyd hoke: a nedle and a quill to sowe and stiche with.

Iohn Yates. And what be the instrumentes whiche are called proper?

Iohn Feilde. Proper instrumentes are theis whose figures also folowe. as a trappan, seruynge to the heade whan as the scul or cranium is fracturyd, speculum oris, and speculum matricis, also gossipium, seruyng for luxations and fractured bones. a syringie masculine and

and also kemyne setons for the necke, aleuatorie and longe neeles of woode. to drawe through the wounde: also gosebilles, crowesbilles, & diuers other described & set out of Albucasis, Celsus, Tagaltius, and others.

Tho. Gale. Theis instrumentes be of meruaylous vse, and wyth out whiche the Chirurgian can nether perfectlye, nother wythout greate greife and peril do that is required: and amonge the rest in my iudgement the trappen is most necessarie, and of an excellent inuention in hurtes of the heade. For with out it wher cranium is fractured, brosyd, or els anye of the inwarde panicles depressed, you shall litle preuayle. I my selfe haue vsed it wyth great profit diuers tymes, and especiallye ons in Cambridge sheire, whiche I woulde declare vnto you, but that I shoulde be somwhat tedious.

Iohn Feilde. Nothynge lesse, but rather pleasant. for by vtterynge of thynges done, great profit may insewe, and we haue decreed to spende this daye in the talke of Chirurgirye wherfore we desire you declare that historie and we wyll geue diligent eare.

Tho. Gale. Right gladlye. Anno. 1559. a seruant of one maister Wrothes, ridynge to the feildes and ledynge a yonge horse in a halter

tyed fast abought the arme of the seruant: the horse beynge wylde, and not broken, starkinge aside vnhorsed thy man, and drewe hym by the arme a bought a great feilde so long, that what wyth strikynge, what wyth drawynge, halyng and pullynge, being wered he stode still, vntyll company came and losed the halter, and toke vp the man halfe deade, and conuayed hym vnto his maisters house. Chirurgians ware sent for, who fyndynge the seruant spechlesse, and wyth out remembraunce of any on whome he sawe: they not perceyuynge the cause hereof them selues, nether yet could be shewed of the pacient the place affected, departed and left hym as vncurable. Maister Wrothe sent for me, and I seinge hym spechlesse, and without remembraunce, conjectured the hinder parte of the heade to be hurte, and smittyn of the horse, whiche I was more certayne of, whan feilynge that parte I founde it softe. Wherefore I takynge of the heer, dyd made firste incision and after that set a trappan on his heade, and bored Cranium through, and toke oute the peace of bone, which done: ther yssued out muche blod, blacke in colour, and drawynge to putrifaction out of the contused and broken vaynes. the nexte daye folowynge, the seruant spaeke and came agayne to his perfecte remembraunce, and I vsyng thynges in this cure as arte requi-

red,

red, God restored the man in my handes to his perfecte helth. I coulde also showe you other examples wher the like chaunces haue happened, and the Chirurgians eyther not knowynge, or wilfullye neglectynge this profitable instrument, haue brought the pacients to there laste ende. so happened it to a seruaunt of maister Pagetes in fylpotte lane. 1538. ond diuers other, whome for breuitie I do let passe.

Io. Yates. This was a worthy cure, and this is a noble instrument, but the Chirurgians whiche neglecte thuse of this or the like instrumentes, are of the opinion of that the rude Emperike Smith was, who in a foliche boke of him published, did inuay against Chirurgians whiche trapened the heade in any grieke of the same, and semeth to him selfe as it ware an other Thessalus to ouer throughe the famous authers, and Inuentours of this instrument. whan (in the iudgement of the lerned) he was no more to them comparable, then the light of a sparke of fire, is equall to the mooste radiant and shyning beames of beautifull Phœbus.

Io. Feilde. This nowe spoken of instrumentes (whiche a Chirurgian muste haue in redines) shall suffice. nowe let vs showe the methode and way howe the person beinge fitte to be admitted to Chirurgirye, maye lerne the arte, lesse that confusedlye he lerne that firste,

whiche sholde be last, and so set the carte before the horse, to his no small hyndraunce.

Tho. Gale. And for this ther is to be followed and obserued two preceptes: firste, that we procede from thynges comon, vnto those whiche are particuler, or from thynges vniuersall, vnto more perticuler. as firste to knowe an inflãmation, then howe many kyndes of inflãmations there are. the seconde precepte is, that we begynne at thynges knowen and so procede vnto those whyche are lesse knowen, as firste in the curation of woundes, we muste begynne wyth a simple wounde; whiche done, we shall procede to the curation of compounde woundes, so in lyke maner in vlcers, firste to knowe and cure a simple vlcer, and then to take in hande compounde vlcers, begynnynge wyth those that are lesse compound, and haue smalest accidents: and so to procede vnto those that are more cõpound, & haue most & greatest accidents ioyned wyth them. the like is also to be obserued in other arts, & scięties, as in iudgyng of colors, firste to know whight & blacke, then other colors which are not so manifest according as they com & spring of ỹ mixture of theis. ỹ. now knowynge & considering theis two preceptes, it is necessary for the right vse of his instruments medicinall, & metalline: to cõsider two thinges, that is to say, thinges called according to natur and thynges against nature. Io. Yates. I pray you

what are those which are called accordynge to nature? & how many be they in nombre?

Iohn Feilde. Guido numbreth those thinges whiche are called accordynge to nature to be.vj. that is to say, helth, the cause of helthe, the effect of helth, strength, custome, & cõplexion. and helth is defined to be an effecte according to nature, apte to performe the actiõs of the same.

Io. Yates. And what doe this. vj. thynges accordynge to nature, teache and shewe me?

Tho. Gale. Because the Chirurgian is natures freinde, & minister: theis shewe you that you muste conserue & kepe them by ther like, & also to expel ther contraries, which wold distroy and overthrowe them.

Io. Yates. And wherof do theis. vj. thinges spring, & by what thynges shall I conserue thẽ? for although you say vnto me, ỹ they are conserued & kept by ther like, yet is it not sufficient to my vnderstandinge, except you two shewe me what they are. Io. Feilde. I wyll tell you, theis. vj. thinges which are secundum naturam, spring of, vij. natural thingesentring the cõpositiõ of mans body. that is to say. iiij. Elements, fire ayer, water, yearth. cõplexions, as hote, cold, moyst, & drie. iiij. humors, blod, coller, fleume & melãcholie, mẽbres of mãs body. vertues, animal, vital, & natural, with ther operatiõs, & spirits. of theis. 7. natural springeth helth & ỹ other rehersed which are accordig to nature

The conseruation of helth dothe consist in the right vse of.vj. thynges named in latyn res non naturales. lyke as in the abuse of them, the decay of helth and bredynge of sycknes and infirmities followeth.

Tho. Gale. It is right so, and theis sixe are called, ayer: meate and drynke: motion and quiet: slepe and wachynge: repletion and inanition: and the perturbations or affections of the mynde.

Iohn Yates. I trust I am sufficientlye taught how to vse my instrumentes accordyng to the indication taken of the thinges which are accordynge to nature: nowe I pray you let me vnderstande what those thynges are whiche are againste nature, howe manye they are in numbre, and what indication is to be taken of them: for the further vse of my instrumentes.

Iohn Feild. Those whiche are agaynste nature, are so called: because they are contrary to the same, and doe further destroy and ouercume nature, and are vtter enemyes to helth, and theis are.iij. in nombre: sycknes, the cause of sikynes, and the accident. the cause of sycknes, is that effecte contrarye to nature, whyche goeth before the sycknes, and prouoketh the same, and ther are accounpted of Galen, and the Grecians whome I folowe) two causes of

sycknes

ſyckneſ. the one beinge outwarde, called procatarctike, or cauſe primatiue: the other is with in vs, and is named the cauſe antecedent, or precedent, or cauſe interne. ſickneſ alſo is defyned of Galen to be an affecte againſte nature: of whyche the action of nature is firſte hurte, & vitiated. and the ſame Galen doth alſo make iij. kindes of ſickneſ generallye, accordynge to the partes of mans bodye in whyche they are. as in the ſimtler partes, ſyckneſ is called intemperature, whiche is eyther hotte, colde, moyſt, or dryе: or els hotte and moyſt, hotte and dryе: cold and moyſt: cold and dryе: and yf it be in the inſtrumental partes, the ſyckneſ is namyd, yll conſtitution or conformation: but yf ſyckneſ happen bothe to ſimiler and inſtrumentall partes, then it hath to name, ſolution or diuiſion of cõtinuitie. Alſo the accident is one effect againſt nature in lyke ſorte as the cauſe of ſickneſ and ſyckneſ it ſelfe is: but it differet from them in this, that like as the cauſe goethe before ſyckneſ and prouoketh it: ſo doth the accident folowe ſyckneſ, lyke as the ſhadowe doth the man. nowe this worde accident, is taken generally, of whiche we wyll nothyng ſpeake, and it is vnderſtande more ſtraytlye, or properlye, ſo is accidente three wayes diuided. for eyther the action is hurte and quite aboliſhed, as blyndelneſ in the eye; or els diminiſhed, as

diminiſhe

dimnisse of syght, or els the actions is corrupted as the syght decraued, and for the indication whiche is taken of theis three thynges agaynste nature: note theis twoo greate, (and of all men alowed) conclusions. Contraria sunt contrariorum remedia. also, similia conseruantur similibus. lyke as thynges whyche are accordynge to nature, are conserued and kepte by ther lyke: so also thynges contarye, are remedies for ther contraryes. and therfore theis iij. thynges agaynste nature, showeth you that they are to be expelled and put away by there contraryes. as for example, solution of continuitye beinge sycknes bothe of similer and instrumentall partes showeth that he muste be put awaye by his contrarye, that is vnitton and Joyninge agayne, also heat is put awaye by coulones: coulones by heate; drynes by moystnes, and moystnes by drines: and soin like sorte in other sycknesses the indication is taken of the contrarietie. doe you nowe vnderstand this?

Iohn Yates. Right well, so that nowe I doe perceyue that the right vse of my instrumentes medicinall, and metallyne, is takyng of thynges accordynge to nature, whyche showeth the conseruation by lyke and agreable medicynes: and of thynges agaynste nature, whyche teacheth me to applye thynges contrarys

trary wher by I may take awaye all that which is againſte nature. but yf you wilbe ſo good as to ſet oute (though it be in breake wordes compendiouſlye) thoſe thynges agaynſte nature, whyche falleth vnder the handes of the Chirurgian, as you haue made playne to me thoſe thynges whyche are accordynge to nature: I ſhoulde thynke my ſelfe ſo muche bounde, as hardly I ſhalbe able to recõpence. for although I knowe that thynges contrary to nature, are to be remoued by there contraryes, yet if I haue not the exacte knowledge what thoſe thinges are, I ſhall very hardly be able to aplie and vſe there contraries.

Tho. Gale, It is ſuerlye ſo, for howe muche wyde you are in knowledge of the ſyckenes: ſo farre wyde ſhall you alſo be in fyndyng out apte and conuenient remedies, and thoſe perticuler greſes, or affectes againſte nature whyche are ſubiecte to Chirurgirie (as Galen witneſſeth in the. 14. booke 13. chapter of his therapeutike methode) are for the mooſte part reduced to. 6. Titles or chapters. that is to wete tumours againſte nature, woundes, vlcers, fractures, and lurations, there be other thinges beſides theis which require the vſe of the hand: but theis rehearſyd perfectly knowen, thother wilbe eaſye to attayne vnto.

Iohn

Iohn Yates. Then I praye you begynne fyrst wyth tumours, and those beyng fynished procede to the rest.

Iohn Feilde. Fyrst it behoueth you to know that thys woorde tumour (called in Greeke onchos) is not that whych Auicenne, and the Arrabians name Apostema, and the Latinistes call Abscessus. For tumour is a generall name to all apostems, and tumours , where as thys woorde apostеme stretcheth no further but onely where as phlegmone is torned into matter, & three other tumours called Atheroma, steatoma, & meliceris, so that this word apostеme , is not so large and generall a name, as tumour is: and therfore abused of Guido, and other, where they call all tumours agaynste nature, by the name of apostemes.

Iohn Yates. Why syr, be not all tumours agaynst nature?

Tho. Gale. No for sothe , for then it had bene for hym superfluous to haue added these woordes, against nature. And Galen in his boke De tumoribus præter naturam , maketh three kyndes of tumoures . One that is secundum naturam, accordyng to nature: as the vaines, muscules, and other emynencies of mans bodye. The seconde is called aboue nature: when as

as these forenamed partes are increased more then their naturall formes, and fygure: but yet in suche sorte that the partes can doe theyr offi-cies. The laste kynde of tumour is called tu-mour agaynst nature. Because thy hurte the action of the parte where it infesteth.

Iohn Yates. I doe nowe cal to remembe-rance Master doctour Cunyngham who made also the same division of tumours .1563. when he red the booke of Galen of tumours agaynst nature to the Chirurgians of London in the hall, but I pray you let me learne what a tumour a-gainst nature is:

Tho. Gale. Out of the same booke of Ga-len, you may gather thys defynition. A tumour agaynst nature, is an augmentation, or swel-lynge, exceedyng the natural fygure of the same and hurteth the action of the same. But Auicenne saith that an apostheme (for so calleth he a tumor) is a sickne* cõpound of thre kind of infirmities, that is to say of intemperatures, of yl cõstitutiõ, & solutiõs of cõtinuity: these wordes you shall finde in the first booke of his Canon.

Iohn Yates. How many kind of tumours are there.

Io. Feild. Guido & other writers of his time make iii. kindes of tumors: Apostema, Pustula, & Exitura. Apostema he calleth a great tumor

in

in whych the matter (whereof it spryngeth) doth offende rather in quantitie, then qualitie. pustula he doth make a lesser tumour, in whych the matter dothe hurte by qualitye, rather then quantitie. And thys tumour tharabians call Bothor. the threid, whiche Guido nameth Exitura: is that whiche the Grecians doe properly cal Apostema, & the latinistes: Abscessus.

Thomas Gale. But the Grecians doe make differences of tumors, accordynge to the substaunce wherof they doe spryng. so shal ther be but two kyndes of tumors generally. that is to say. humoralis, spryngyng of humors, and flatuosus commynge of wyndye spirites: this Guido termeth Apostema ventosum.

Iohn Yates. And howe many differences is ther of tumors whych do spryng of humors?

Tho. Gale. Twoo, simple, and compounde.

Iohn Yates. Howe many simple be ther?

Iohn Feild. There be also. iy. hote & colde

Iohn Yates. Why are theis tumours called simple and compounde?

Thomas Gale. They are called simple, whan as they spryngе of one sincere humour, with out the mixture of other. and they are called compounde, whan the tumor cometh of two or more

or more humors.

Iohn Yates. Wherfore are the tumors called hotte, or colde?

Tho. Gale. They are called hotte, because they spryngе of hoote humours: and named coulde by the lyke reason, because thy are ingendryd of could humours.

Iohn Yates. How many hotte tumours be ther, and how many colde?

Iohn Feild. Diuers, and sondrye, as you shall perceyue by the proceſſe of our talke. but the moſt famous are foure: spryngynge of the iiij. humours simplye, wyth out the myxture of other of theis two &c.

Iohn Yates. Whiche be thay.

Iohn Feilde. One comyth of blode, and is called Phlegmone, in Engliſhe, inflamation: an other spryngeth of coller, and is called Erysipelas, or. S. Anthonies fyer: and theis be hoote tumours. an other cometh of fleume, and is named Oedema: the forth is ingendred of melancholie, and hath to name Scirrhus. This two tumours, are colde, all other simple tumours are aptly reduced to theis. iiij.

Iohn Yates. And what be the compound tumours?

Tho. Gale. They be diuers and varieth ther names accordynge to the mixture of humours.

mors. and the humor are miryd, equally, or inequally, if they be myxed equally: then the tumour is called Phlegmone and Eryspelas. but yf they be inequallye miryd, then the tumor, taketh name of the humor whiche surmounteth, as blod surmounting choller, in a tumor: it is called Phlegmon Erisipelatodes, if fleume be myxed with blode in stede of coller in forme as is aforesayd: then the tumor is named phlegmone Oedomatodes, and if blode myxyd with melancholy surmounte it is called Phlegmone scirrhodes. so in lyke case there are. iij. tumors whiche take names of the humors myxyd with collor, coller hauynge the dominion as whan blod is wyth collor they call the tumor Eryspelas Phlegmonosum. If fleume, Eryspelas Oedematosum, and if melancholike then the tumor hath to name Eryspelas scirrhosim in lyke maner, fleme hauing dominion in the moisture wyth any of the other three humors, the tumor is firste called Oedema, and then yf coller be miryyd wyth it they adde this worde Eryspelatosum. If blode the tumor is called Oedema Phlegmonosum, and yf melancholie, then is it namyd Oedema scirrhosum, and to conclude, the lyke is to be sayde of melancholie whan as any of the other. iij. are mixed wyth as scirrhus

Oedemato sis.

Plegma-

Phlegmonosus, scirrhus Erysipelatosus, and Scirrhus Oedematosus: blod, coller or fleume beinge vnequallye miryd wyth melancholye.

John Yates. What profit insueth to the Chirurgian by knowynge the mixtur of theis humors, in tumors against nature?

John Feilde. Greate profite, for by knowyng the true mixture, he is taught therafter accordingly to vary his medicines. for like as a simple tumour hath a simple cure & is curyd by his contrarie: so a compounde tumor hath a compounde cure & is curyd by his contrarie. as for the more plainer vnderstandyng, if ỹ tumor be miryd of fleume and melancholie equallye: then shal you equally mixe suche medicynes together, as are conuenientlye vsed in Oedema and Scirrhus, But if fleume, and melancholie be inequally miryd: and the greater portion is fleume, then in the composition you must in lyke maner put the greter portion of suche medicynes as you vse in Oedema, and the lesser of suche as are applyed in Scirrhus. and this rule, and precepte is to be diligently obserued in all compounde syckes. and for because the mixture of theis tumors, is so necessarie for a Chirurgian, as you maye righte well perceyue by that whiche is nowe spoken: beholde this table which showeth you all the mixture and names

of tumors against nature. Which for the great profit wolde be commytted to Memorye, of him that wil haue the Methode of curyng cõpounde tumors against nature.

Iohn Yates. You promysed to showe the tumors which are refered to the .xiij. principall simple tumors, Phlegmone Erisipelas, œdema: and scirrhus.

Iohn Feild. And that we promised, we will performe, first vttering ther names: & that being done, we wil show you ther definitions. And we wil begin wt sanguine tumors, which are referred to Phlegmone: & then procede to the reste. There are referred to phlegmone: Phygethlon, Bubo, Phyma, Dothienes, Anthrax, gargareon, Paristhmia, aneurisma, Gangręna, & Sphacelus.

Iohn Yates. What is Phlegmone?

Tho. Gale. Galen affirmith phlegmone (or as we cal it in English, an inflãmation) to come of the flux of blode by the greater vaines, & arteries, vnto those which are lesser: & frõ them vnto those vaines which are lest of all (which because they are no greater then heres, are) called capillares. These vaines beinge fylled wt this contynual flux of blod, part yssuith out be ỹ mouthes of the vaines: & part by ỹ cotes of ỹ same, wherby the voide spaces are filled, inflamed, distended

bed & ſtreched out. And this tumor galen calleth the inequall intemperature of the muſcle. And note, that there are two kindes of inflammations. One which is called vera inflammatio, & this ſpringeth of good and naturall blode. The other is named Non vera, coming of yll and vnnaturall bloode, and this is common to all inflammations.

Iohn Yates. What cal you Phygethlon?

Tho. Gale. That which Celſus nameth Panus and this tumour is an inflammation of the glandilous partes in the neecke armpites and grine, which yf they be indurated after this inflamation, ther cometh tumors which is named Chœrades in latine ſtrumas and Guido nameth them ſcrofulas and then this tumor is numbred amonge flegmatike tumours. And is wyth vs vſually called the kings euyll: becauſe the kings and Queenes of England (by a diuyne and peculer gyfte of God) doe cure ſuche as are moleſted wyth this infirmitie, whan as no arte of Chirurgerye can take place. And thys diſſereth muche from that ſyckenes whyche the Latyneſtes name Regium morbum.

Iohn Yates. Wherefore is it called in Greeke Chœras?

Iohn Feilde. Eyther of ſtones apearing

by the Seas, or els of swyne whiche are often vexed wyth this tumor.

Iohn Yates. As touchyng Bubo, Guido calleth it a flegmaticke apostеme, wherfore I wyll let that passe vntyll we come to the reasonynge of the same.

Tho Gale. You seame to accuse vs of errour, or ignorаunce whan as we shoulde numbre flegmatike apostemes as you cal them amonges sanguine tumours. But I wyll this affirme boldlye that Guido eyther meaneth some other tumor whiche he so calleth: or els he repugneth manifestly wyth Galens authoritie, for Galen maketh Bubo a simple inflammation of the glandelous partes in that flankes.

Iohn Yates. I doe not accuse you but rather shewe you Guido his mynde: which seing that it doth not agree wyth Galenes I muste gyue place and alwaye preferre Galen before Guido. Wherfore I pray you procede with the other inflammations and shewe me what the tumor is whiche the Grekes call Phyma.

Io. Feilde. This tamor is a pushe which wyll presently as yt ware come to suppuration, and it is called Phyma by similitude it hath with puffes or mushrumes springyng oute of the yearth. and ther be two kyndes of theis tumors, one comynge of heate, an other of coulde

but

but we in this place do nombre onely the hoote tumor amonge inflammotions.

Iohn Yates. Dothienes foloweth nexte in order.

Tho. Gale. Dothienes in Greke, is called of Auicenne, Aldemurenul, of Celsus furunculus, with vs a felone or cattes heare, & is a sharpe swllynge wyth inflammation chancing in the fingers with dolour & torneth to matter spedelye, and theis often haue a feuer ioyned with them.

Iohn Yates. What is Anthrax?

Io. Feild. That same which we cal Carbunculus and is an vlcerous tumor springyng of grosse melancholycke bloude putrifyed. This tumor foloweth greate inflammations, and ther are two kindes of carbuncles. the one more Ientle and benigne: the other pestilential, and mortall, and the carbuncle is both wyth pustles and also without.

Iohn Yates. Guido maketh difference betwixte anthrax and carbunculus.

Tho. Gale. Ther is no difference at all, but that anthrax is a greke worde & Carbunculus a Latyne. For Guidoes difference wher he maketh anthrax a malignant tumor, is no other thing then the pestilential carbuncle. but his diuiuation of the name is more ridiculous where

he saith that Anthrax is said of Antra, whyche he saith signifieth the harte, but in what tungne Antra is used for the hart that he left vnwrittē. sure I am, that it is neyther latyne, Greke, nor arabicke worde.

Io. Yates. Wel then I am herein satisfied touchynge the Carbuncle, what defyne you Gargareon to be?

Iohn Feild. Gargareon called in latyne Columella is an inflammation of vuvla, like as Paristhmia or tonsille are inflamations of the kerneles situates in the beginning of ỹ iawes. Guido & other of his sect call them Amygdalas.

Iohn Yates. Aneeurisma is nexte.

Tho. Gale. This tumoure is no other thynge, then a dilatation or rather relaxation of the arteries, whereby the bloode and spirites are dispersed makyng a softe tumour whych beynge pressed, with the fyngers semeth to banish awaye: but the fyngers taken agayne away, The tumour cometh to his wonted bygnes againe.

Iohn Yates. If you doe in like sort set out what Gangrena & sphacelus are then you haue finyshed all suche tumoures as are referred to flegmone.

Iohn Feilde. Galen in hys second booke whych he wrotte to his frende Glauco defyneth

gangrenam to be a mortifycation of the member vnconfyrmed, sprynging of greate inflammations. And Sphacelus called of diuers wryters Aschachilos, and of the latinestes syderatio is the exacte and confyrmed mortification of the member.

Iohn Yates, Then by your wordes I gather that bothe Gangrena and Sphacelus folowe after greate inflammations: and that they two differ in this, that Gangrena is as it were in growing and increasing euer more and more towarde mortification of the member: and sphacelus is whan as Gangrena ceasith to corrupte further the member, and that is nowe perfectlye mortifyed and deade boyde of all naturall heate, blode, spirites, and feeling.

Tho. Gale. You haue rightly sayde.

Iohn Yates. Then seyng we haue thus ended suche sanguyne tumoures as are referred to Phlegmone, I praye you in lyke maner procede in the coloricke tumours whyche are of like affinite with Erysipelas?

Tho. Gale. Wee wyll so doe. Vnto Erysipelas are referryd Herpes, Phlyctenę, Epinyctides and Hydroa. But fyrste wee wyl define what Erysipelas is, and then procede to the reste.

Iohn Yates. I thanke you that you will accomplishe my request and desire.

Iohn Feilde. Erysipelas beynge of much affinitie with Phlegmone, called also of the Latinestes ignis sacer, of vs wylde fyre or Saincte Anthonies fyre, is a flure of coller staying aboute the skynne nothyng molesting the flesshe. And it differeth from Phlegmone fyrste that there is no pulsatiue dolour in it, then that in the inflammation of bloode the colour is alwaye redde: in Erysipelas the colour is yelowyshe pale: laste that Phlegmone ys an affecte of the muscules: and Erysipelas is onely of the skynne and thys is to be vnderstande of Verum Erysipelas.

Iohn Yates. Is there any more then one kynde of Erysipelas?

Tho. Gale. Haue you forgottē that which was before rehearsed of compounde tumours? And that there was Erysipelas Phlegmonosum, Oedematosum, and scirrhosum? These be comprehended in dede vnder the name of compounde colloricke tumours or Erysipelas illegittimum.

Iohn Yates. So then you make two kinds of Erysipelas verum: and also illegittimum.

Iohn Feild. It is ryghte so. And that which

whyche is illegittimat or not ryghte Erysipelas is also diuided into two kyndes. The one commyng of the groser and thicker sencere coller and is named Erysipelas wyth vlceration and the other is coller hauynge other humoures myxed with it as I saide before.

Iohn Yates. Seynge then that I vnderstande what Erysipelas is, and howe manye kyndes also there are of them: I praye you let me vndestand what herpes, is for that foloweth nexte in order.

Iohn Feilde. Herpes is that tumour and affection of the skynne whyche Hippocrates so dothe name of corrodyng and deuourynge the skynne: for herpo is that whiche is called in latyne Serpo whereof commeth hérpys quasi serpens. And there is two kyndes of herpes, one called herpes Estiomenos, so called because it eateth and deuoureth: the other is named Cenchros in latyne miliaris for that the tumour is like Millit seade. Iohn Yates. Guido dothe speake of Estiomenus in this wyse. Estiomenus est mors et dissipatio membri: et propter hoc dicitur Estiomenus, quasi hominis hostis, cum putrefactione & mollificatione membri.

Tho. Gale. Where Guido sayth that Estiomenus

stiomenus is the death and dissipation of the membred and for that is called Estiomenus as who shoulde saye the enemye of man, comynge with putrefaction and mollification: I do litle in my Judgement alowe hym, first that he leaueth the princes of Phisicke Hippocrates Galene and Paulus, and foloweth those of smale lernynge and authoritie: and then that he will seame to interprete that tungue in whiche he had small knowledge. for wher ded he euer red amonge the Grecians that the tumour Estiomenus was confoundyd with Sphacelus, which in dede is the mortification of the membre. and agayn wher lerned he the deriuatiō of Estiomenus to be hominis hostis. But this maye yet seame tolorable in Guido, whan that Auicenne gyuynge occasion of errour to other, comprehendynge both kyndes of herpes, vnder the name of formica, doeth also moofte absurdlye comprehende myrmecias (that is to saye formicas and is a kynde of wartes) vnder the name of herpes and so confoundeth bothe to gether. but this shall suffice touchynge herpes.

John Yates. Then let me lerne what Phlyctenæ are,

John Feilde, Aetius in his. xiiij. booke and

and .63. chapter sayth that they are pustules comynge of sharpe coller: lyke to the blestres whiche cometh of scaldynge water, and, bryng no vehement dolour or payne, whiche beinge broken ther floweth oute a yelouslie humour, continuynge vnto the third or sometyme forth daye.

Iohn Yates. And what doth theis kinde of pustules differ from those whiche are called Epinictides?

Tho. Gale. Very much. for epinyctides be the mooste yll and malignant kynde of pustules. be swarte, and leady in coloure wyth greate and vehement inflammation aboughe them. and theis beinge opened ther is founde a slymye exulceration in them. this tumor is neuer greater then a beane: and is called Epinyctis because comonlye they sprynge in the nyght season, and then mooste molesteth the pacient. The Arrabians call this tumour essare, or saire. and Plynie nameth it Pustula lyuens.

Iohn Yates. There yet remayneth those tumours whiche the Grecians doe call Hidroa and the Latinistes Sudamina.

Iohn Feild. Auicene nameth them planta noctis and Rasis Alhasaphum. Theis are certayne colericke pustules

pustule comyng of muche and abundant swette whiche through the sharpnes therof doe exasperate and vlcerate the skynne: and thus haue you lerned the most famous and notable colloricke tumors wherfore we wyll nowe conuerte oure talke to suche as are phlegmatike.

Iohn Yates. You do meane suche as are referryd to Oedema do you not?

Tho. Gale. Yes verely and they be called by their names. Atheroma, Steatoma, Meliceris, Hidrocele, Ascites, Leucophlegmatia, chæras, Bronchocele, and Hydrocephalon: and as touchynge Oedema it is thus defyned. Oedema is a tumour softe, lose, and with out dolour or greefe, springynge of fleume. and it is deuyded into Oedema that is a deseace, and into that whiche is symptoma or accident. of this Galen maketh mention in the. xiiij. boke. iij. chap. of his therapeutike methode. the trew Oedema is that whiche folyshly the Barbarous Cirurgians call vndimia.

Iohn Yates. I remembre Guido nameth it both vndimia and also ydemea, and cimia: but let that passe. I pray you set out those three famous apostemes flegmatike whiche you call Atheroma, Steatoma, and meliceris.

Iohn Feilde. This apostem called in Latyne

Latine abſceſſus and of Haliabbas, Selaa, of Auicenne Nodi, haue diuers names after that thynge whiche is in euery of them conteyned. For Atheroma whiche is a tumor of like colour on all partes and with out payne and dolour, conteyneth in the neruous cootes a chlyme humour and lyke a pulteſſe in ſubſtaunce. and ſomtyme there is founde in it heres, ſkales like bones, & hard thynges as they ware ſtones. and Steatoma that is to ſaye adipinus nodus, or a fattye knote or a tumor, is an augmentation of fatnes againſte nature gathered in ſome parte of the bodye. Meliceris or Nodus mellæus, is a rounde tumour harde and voyde of grefe in whiche the neruous coates do conteyne an humour lyke in ſubſtance to honye. and all theis iij. effectes are firſt ſmall and lytle. and ſo by lytle and litle augmente and ware. and are conteyned wyth in there ſeuerall fylmes or coates.

John Yates. What defyne you hydrocele to be?

Tho. Gale. Hydrocele is that whiche in Latine is called hernia aquoſa or humoralis, and is a tumour ſpringynge of a watrye humoure gathered in the purſe of the teſticles.

John Yates. And what is aſcites?

John Feilde. It is one kynde of the dropſie. and this tumour is whan that a ſeroſe humour

is a

is conteyned betwixt the inwarde coate of abdomen and the intestines. This coate is called peritonæum.

Iohn Yates. Leucophlegmatia foloweth next.

Iohn Feild. It is also named Anasarca and hypostarca and is an inequall tumour going through the hole body. this may in my conceypte be aptlye termed an vniuersall œdema of all the bodye, as touchynge cherades we haue spoken amonge sanguine tumours.

hypostarca

Iohn Yates. There yet remayneth two tumours Bronchocele, and hydrocephalon.

Thomas Gale. Bronchocele is a tumour in the throte called also Bocium, & it is a greate and rounde swellynge of the necke betwixt the skynne and aspera arteria, in whiche is conteyned some tyme, flesh, some time like hony, fatnes, or a pultesse. and sometyme sayth Celsus ther are founde hears mixyd with bones also Hydrocephalon is a watry tumour ingendred for the more part in the heades of children. or els it come of grosse blode collected in anye parte of the heade, ther be. iij. kyndes of this tumour. one whan the humor is betwixt pia mater and the braine. the seconde whan the humor is collected betwixte the coates and the bones:

the.ij.is betwixt pericranium & the bone, the last is betwixt the skynne & the bone.& thus we haue set out the most notable kindes of flegmatike tumours.

John Yates. Seinge that you haue fynyshed three kyndes of tumours sanguine coloricke and flegmatike, nowe I pray you let vsspeke of melancholicke in like sorte.

John Feilde. Unto Scirrhus are referred. Cancer, Elephantiasis, Satiraſmus Psora lepra, Enchimoma, melasma, varices, sarcocele, Polipus Verruce, acrochordines, myrmeciæ, & suche lyke. and firste we will take oure beginnynge with Scirrhus, you shal note that ther are reconyd of Galen. ij. kyndes of Scirrhus. one that is exquisite, the other not exquisite. The exquisite Scirrhus is definyd to be an harde tumour against nature, with out dolour or felyng and is incurable. The second kynde of Scirrhus is also a tumour againste nature harde, but not al together insensible and therfore curable. although it be not wyth out difficultie.

John Yates. Nowe seyng I haue lerned what Scirrhus is and also howe manye they are, I praye you procede to Cancer.

Tho.

Tho.Gale. Cancer called of the grecians Carcinoma,and Carcinos,is an inequal tumor against nature,horrible to beholde of swartishe colour and with great payne. It is called cancer of fygure and similitude it hathe wyth the sea crabbe.for like as in that,the feete are on bothe sydes of it: so in this tumour the vaines beyng fylled wyth a grose melancholike humour,they are swolne and distended like as it were the fet of a crabbe or this tumour maye otherwyse be called cancer because it dothe so inseperablye cleaue to the place where as it once is fyrmely fyxed.and there be twoo kyndes of Cancer.one that is wyth vlceration and is called Cancer Vlceratus,an other that is withoute vlceration and is named Cancer Occultus.

Iohn Yates. What is Elephantiasis.

Iohn Feilde. It is an vniuersall Cancer of the body,and is that which the latter writers of the Arabians name Lepra, &. S. Lazarus sycknes: it taketh name of the beaste called an Elephant be cause of the greatnes of the affecte length and roughnes of the skynne. It is also named Leontiasis because of the lose & rugose tumour of the skynne. This sycknes is terrible, contagious and in the number of those infirmities placed whych are contagious.

Tho.Gale. And when thys tumour is but

AN EXCELLENT TABLE DECLARING
the differences of vvoundes.

- Similer part, of vvhich ther are iij. differences. for it is ether in
  - 1. Soft parte as in
    - flesh
    - fatnes.
  - 2. Harde parie. as in
    - bones
    - Ioyntes
    - vaynes
    - Arteries
  - 3. Neither softe, nor harde, as in
    - Neruys.
    - tendons
    - ligamentes.
- 1. of the nature of the parte in vvhiche the vvounde is
  - Harte

The principal difference of vvoundes are taken of thre thinges: that is to say.

1. Of the vvhiche the vvounde is made: as in.

Instrumental part. so is it eyther in the

1. Principal parte. as in the
- Harte
- liuer
- brayne.

2. Seruing the principal partes as in
- Aspera arteria
- throte
- Bladder

3. Not seruing the principal partes.
- Nose
- Eye.
- Hande
- Fotte. &c.

2. of the essence of solution of continuitie.
- Simple vvonde.
- Compounde

3. Of the difference of solution of continuitie as of

Quantitie and the vvounde is called.
- a great or litle
- a long or short
- a brode or narrovv.
- a deape or sholovv.

Vvounde.

inequal or inequal

Vvounde. &c.

Figure as
- a croked or oblique

2a retorte

yet in the begynninge. it is not called Elephantiasis but Satyriasmis, takynge that appellation of the satyres whome the Poetes describyd to be deformyd and monstrous.

Iohn Yates. Seynge that Elephantiasis is not lepra Grecorum, I pray you; shewe me ther difference.

Iohn Feilde, Galen in his booke of diffinitions doth diffine it in this sorte. lepra is mutation of the skynne into an habite against nature, wyth asperitie and ychyng, dolour. and skales and occupieth diuers partes of the body. and there is no smal affinitie betwixte lepra and scabies: both being affections of the skynne, both springynge of melancholicke Iuse. and they differ in figure. for lepra occuppeth and deuoureth depely the skynne in rounde figure, and casteth skales like fishe: and scabies called also psora infestyth rather the vpper parte of the skynne and is diuersly figured.

Iohn Yates. Enchymoma foloweth next, and melasma.

Tho. Gale. Galen in his booke de tumoribus præter naturam. 10. cap. saith that they are tumours happenyng to olde men throughe the contusion of the vaynes: wherby the bloode flowe out of the coates of the vaynes. of theis some be blacke, some betwixte blacke and redde

in colour. & they come of small & light occasions
Iohn Yates. The next tumours are varices in greke called Cirsous which I take to be ỹ swelling of the vaines through to great flure ofgrose & melancholike blod. And I haue most comonly sene them in the shankes and testicles.
Iohn Feilde. And those be the proper places for this tumour: lyke as the two tumors nexte folowynge sarcosele and Polypus haue ther peculier partes which they doe infest, as sarcosele is a fleshye tumour growynge in the testicles, and is called in Latine hernia carnosa: the other is a fleshye branche springynge in the nosthrilles, and letteth the operation of the same. and it taketh name of a fleshe called Polypus. for lyke as that fishe hath many legges, so also hath this tumour manye rootes wherby it cleueth and groweth to the nosthrelles.
Tho. Gale. It is right so, and verruca whiche is nexte in order, is a certayne tumour apperinge in the vppermost parte of the skynne it is named with vs a warte, of this sorte be acrochordones, and myrmeciæ. Acrochordon is a rounde warte hangyng as it ware by a threde and therof taketh name. and is called in Latyne verruca pensilis. and myrmecia is also a kynde of wartes whyche groweth deper and is hard and fixed to the skynne, narowe aboue,

and

and brode beneth, prouokyng dolour and paine and is blacke in colour. and thus haue we finished and declared vnto you all the notable tumours whiche are referred to the. iiij. simple Phlegmone, Erysipelas, Oedema, and Scirrhus.

Iohn Yates. Yet amonge all theis I here you make no mention of morbus, whiche I thyncke is to be numbred amonge tumours against nature?

Iohn Feild. I do not well vnderstande your meanynge, for manye a tumour is called morbus. for morbus is a Latine worde, and all sycknes and infirmyties be called morbi.

Iohu Yates. Yea but I meane that scabbe whiche the common Chirurgians calleth the morbus, and the morbus cause, and the better lerned nameth it morbus gallici

Tho. Gale. It it is a great thynge to be trayned vp in ignorannce or Barbarous doctrine at the first, for euer after do what you can they will haue some tast therof, as right excellently the Poete Horatius said.

Quo semel imbuta recens seruabit odorem.
Testa diu &c.

Whiche is as muche in effecte to be vttered in our vsuall language as

VVith vvhat thou first filste thy vessell.
Of the same longe time it vvyll smell.

And this may right well be verifyed wyth those of our tyme: one rude Emperike called it the morbus and a numbre foloweth hym in his folly. and an other because he wolde seme connynger then the rest, wyth as muche ignorance nameth it morbus, Gallici brekynge the olde Pricians head, and yet wil not, or can not gyue hym a plaster. But if you will vse that vsuall name you might haue named is morbus Gallicus, or Lues venerea, and so haue obserued cõgruitie in spekyng. but as touchyng the names of that contagious infirmitie, which is vsually named morbus gallicus: in my opinion they all doe nothyng expresse the nature of the sycknes. and lyke as the authors, whiche wright of it varieth in the names: so do they both in knowyng the disseace, and cure of the same.

Iohn Yates. What then shall I properlye call it?

Iohn Feild. That same that Maister Doctour Cunyngham hath inuented a similitudine cum chamęleonte bestiola. That is he calleth it Chamęleontiasis. the reasons hereof, the definition, cause, signes, prognostications, & newe kynde of curation, he hath expressed in a booke

booke therof wrytten, whiche I trust he wyll hereafter publiſhe.

Iohn Yates. And dothe he not numbre chameleontiaſis amonge tumours againſt nature?

Tho. Gale. Nothynge leſſe, for he accompteth all thoſe tumours, ſwellyng, knottes, vlcers, and ſuche like infeſting the body of man; but as accidents. and no parte of the infirmitie, neyther laboureth he ſo muche in theis as in expellynge the ſicknes whiche bryngeth forth theis accidentes. for theis are to be remoued with out difficultie or great trauayle.

Iohn Yates. I iudge his newe inuented way of curation to be extreme and dangerous to the pacient. for both the fumes, vnguents, and ſtrayte order of diet with the wood, are wel knowen to be dangerous, and yet many tymes doeth not that whiche they promiſe. but yet yf his way be perfite it is the more to be likyd and he worthy prayſe.

Iohn Feild. His waye is voyde of danger, eaſie to the pacient, exacte alſo and perfite.

Iohn Yates. Seinge then that Chamæleontiaſis vulgarlye termyd morbus gallicus is not to be numbred amonge tumours againſte nature I: pray you procede to the other parte of your diuiſion, for I remembre that you ſayde

ther ware. iij. kyndes of tumours, the firste yo⁹ called humoralis because it doth spryinge of humours. the second ventosus, for that it is ingendryd of spirites. The third you termyd. tumour varius, because they hae mixyd causis. somtyme of humours and spirites myxyd, and somtyme of other causes. Ther for I pray you nowe let me lerne how many tumors are referryd to ventosus tumour.

Tho. Gale, The most somous are two. Tympanites and priapismus.

Iohn Yates. What is tympanites?

Tho. Gale. That whiche Hippocrates nameth a drye dropsie. and is a tumour spryngynge of wyndye spirites, collected betwixt peritoneum and the intestines. and if you smite the body of the pacient verid wyth this tumour it will gyue forth a sounde lyke to the tympanis and hereof it first toke name.

Iohn Yates. And what tumour is that whiche is callyd Priapismus?

Iohn Feilde. Priapismus is a tumour of the yarde, wherby it is destēdyd out in length and breth through vaporous spirites fillyng the nerue called neruus cauernosus constituens colis substantiam.

Iohn Yates. There yet remayneth to

spek

to speke of those tumours which you terme tumores varios.

Tho. Gale. Ther doe so as you saye. and theis be the notablest of those tumours. vitiligo, exanthemata, parotides, mentagra, Epiplocele, Enterocele, Enteroëpiplocele, Bubonocele, exomphalos, Arthritis, podagra. Chiragra.

Iohn Yates. What call you vitiligo.

Iohn Feild. If you will generallye take it, it signifyeth a foulnes and staynynge of the skynne, coming of the yl disposition of the parte, whiche can not make good assimulation of the nourishement. and ther be two kyndes of this tumor, the one named in greke Leucæ of the Arabians Albaras, and in Latine vitiligo alba whiche is a mutation of the skynne in to more whightnes. the other is named alphos, and of Auicenne morphea, and we vsuallye cal it the morphew. and ther are two kyndes of morphew, the one whight called of Celsus Leuca Alphos, the other blacke. and he termeth it mela. and alphos, is deriuyd of this Greke verbe Alphenein, whiche signifyeth to alter or change. and so doth the morpheu alter & change the coulour of the skynne.

Iohn Yates. And what tumors are those whiche the grekes do cal exanthemata?

Tho Gale. They be pustules and tumours breaking out of the skinne, bringing with them feuers and manye other accidentes. And there are two sortes of them: one hygher springing of thimne and cholorike bloode, the other broader and commeth of melancholike and grose blode. the fyrst kynde we call the small pockes, in Latine Morbilli, the other the measelles, & Variolę in Latyne.

Iohn Yates. Parotides folowethe nexte in order.

Io. Feilde. Parotides be inflammations whych happen to the karnelles that are behynd the eares. And they springe sometime of sincere bloode, sometyme of acume, sometyme of choller, and sometyme of melancholie. And herein note the prouidence of nature. For she hathe made the rare and lose partes called karnelles to be as emunctories for the noble partes. As the karnelles behynde the eares, serue to the brayne. Under the armpittes seruynge to the spirituall members. And the karnelles in the gryne doth receyue the superfluities that commeth from the liuer, whan as it doth eyonerate and purge it selfe, and this is moste manifest in pestilentiall constitutions in whyche theys noble members thurst and expell the venome to there purgien places.

Iohn

Iohn Yates. As for Mentagra you nede not to speake of, for I knowe ryght well, it is no other thynge then Morbus gallicus, or Chamęleontiasis, as the booke bearynge the name of Mentagra doth testifye.

Tho. Gale. And yet bothe you and the authour of that booke doe herein mysse the quishynge, as suer as you make your selfe of thys. For thys tumour whych Plinius calleth Mentagra, & impetigo in Greeke Leichin sprange first amōg the Italians in the time of Tiberius and is a deformitie of the skynne beginnyng for the more parte at the chynne and wyll spedelye turne into lepryе and caste of skales lyke fyshe. And Galen wytnesse in the v. boke & v. Chap. Secundum loca. That impetigo wyl turne into Lepram. Therefore what difference is betwixt Mentagra and Chamęleontiasis it is easely conceyued, the one hauing Causam occultam as I may terme it, and the other manifestam.

Iohn Yates. And what Judge you epiplocele to be.

Iohn Feild. I wyll not onelye speake of that, but also of thother kindes of hernia, whych followeth nexte. And fyrste you must note that epiplocele is a Greeke worde compounde of epepleon

epiploon whiche the latinestes call Omentum and we name it the caule, and cele which signifieth ramex or hernia. So that epiplocele is a tumor comyng whan as omentum falleth in to the purse of the testicles. And by the lyke reason Enterocele taketh name, when as the intestines falleth into the forsayde place. And Enteroepiplocele folowth whan as bothe Omentum and the intestines fall in scrotum, or purse of the testicles. Furthermore Bubonocele is a tumor called in latyne inguinis ramex and happeth whan as Peritoneum is ruptured or wounded by the flankes. Exomphalos is a tumour perteining to the ouertwart muscules of abdomen, which being relaxed ther folowth a sterting or emynency of the nauel.

Tho. Gale. My brother Yates doth the redierly conceyue the differences of these kynde of Hernia, for that he hathe a peculer waye of curyng some of them, especiallye of Enterocele or Hernia intestinalis, as Guido tearmeth it wherefore we wyl no lenger stande in vttering the differences of them, but procede to arthritis Podagra & Chiragra. For I thynke the daye wyll scarsye suffyce to declare, that whyche yet remayneth, and therefore as touchynge Arthritis you shall note and consyder that it

is a

is a tumour commyng of the flure of humors into the Joyntes: and is named in Latyne morbus articularis. And so is thys tumour common to all the Joyntes of the bodye except it be the handes and the feete.

Iohn Feilde. Yea for yf thys flure happeneth to the handes, it is named Chiragra. And yf to the feete, then it is called properly of the place, Podagra.

Iohn Yates. Theys dyseases of the Joyntes be greuous and paynefull, haue they no other cause but the flur of humours?

Tho. Gale. The flure of humours is but the interne or antecedente cause, whyche commeth of the primatyue, but it is no part of our myndes to sette out eyther the causes sygnes, or curation, of tumours, seynge that wee haue done that in oure booke of the methodicall cure of tumours agaynst nature.

Iohn Yates. Seynge that you haue nowe spoken of all the notable and famous tumours agaynste nature, I praye you turne your talke to woundes, whyche Auicenne and those that folow him calleth Plaga.

Iohn Feilde. Before we enter further herein to sette oute the differences of woundes, it is conuenente to knowe what a

wounde

wounde is. and the moste parte of writers doe agree that a wounde is the solution of continuitie newly made in the partes of the bodye without putrifaction or matter.

Tho. Gale. Yea for whan as putrefaction or matter doth folowe, then it leuyth the name of a wounde and is called an vlcer.

Iohn Yates. And maye a wounde degenerat into an vlcer?

Tho. Gale. Yea for sothe, and so dothe moofte partes of woundes especiallye if they be greate and in suche partes as may not be cured wyth balmes.

Iohn Yates. And howe many differences be ther of woundes?

Iohn Feild. Many, but the cheke & principal and that also are necessarie, are numbred to be three, and we wyll showe you wherof the differences spryngе.

Iohn Yates. Doe you so.

Thomas Gale. Guido and other famous writers of his tyme, taketh the difference of woundee of three thynges. The firste is taken of the nature of the parte, in which the wounde is made. The seconde difference spryngeth of the substaunce or essence of the solution of continuitie. The thirde difference spryngeth of the difference of the diuisiõ, or solutiõ of cõtinuitie.

Iohn

John Yates. And howe are the woundes called, thoſe difference cometh of the nature of the parte in whiche that wounde is.

John Feild. It is called a woundein the ſimiler parte, and a wounde in the inſtrumentall parte.

John Yates. Then to knowe theis woundes exactly it doth behoue to knowe theis partes of the body whyche you called ſimiler, and inſtrumental.

Tho. Gale. It doeth right ſo. and it is called a ſimiler parte becauſe it is ſimple and may be deuided in to like partes. and that alſo whiche is required to the conſtitution of the organicke or inſtrumentall partes. Suche partes of the bodye are fleſhe, fatnes, arterye vayne nerue, tendon, ligament, bone, and ſuch like. & thoſe be named inſtrumentall partes, whiche are made of theis ſimple or ſimiler partes. And the inſtrumentall partes are the heade, eye, noſe, tungue, harte, lyuer, longues, armes, feets, and a greate numbre of ſuche lyke, and euery of theis partes haue ther ſeuerall vſe and office, as more largelye appeareth in the booke of Galen intituled de vſu p rtium.

Iohn Y tes. And howe manye ſondrye woundes are ther in the ſimiler partes.

Iohn F ild. Ther be three, whiche are

taken

taken of the substaunce of the similer partes. for it maye be in the similer parte whyche is softe as woundes made in the fleesshe, and fattenes, or elles in the harde symiler parte, as woundes in the bones, or fynally it maye happen to the meane similer parte, whyche is neyther harde nor yet softe, suche be those woundes in the baynes arteries nerues tendons & ligamentes.

Iohn Yates. And what difference is there of the woundes in the organike or instrumentall partes?

Tho. Gale, There is a threefoulde difference of those woundes accordyng to the parte affected. For eyther the wonnde is made in the principall partes, as in the harte, lyuer, or brayne: or els in those partes whych serue theis principal partes, as woundes in Aspera arteria, the throte, and bladder. Or it is in the organike partes which are not seruisable, to anye of the principall, as woundes happenynge in the nose, eye, eare, hand, foote, and such like.

Iohn Yates. Then there be syxe differences of woundes taken of the nature of the parte, three in the simpler, and three lyke wyse in the instrumentall partes. Nowe lette me vnderstande the difference of woundes taken of the essence of the solution of continuitie.

Iohn Feilde. There is a twofoulde differance

rence. for eyther it is a symple wounde, or elles it is a componnde wounde.

Iohn Yates. What is a simple wounde?

Iohn Feilde. A symple wounde is solution of continuitie, newlye made beynge voyde of accydentes or other affectes wyth it complycated and ioyned.

Iohn Yates. And what is a compounde wounde?

Tho. Gale. The contrarye to a simple wounde. For it is solution of continuitie hauynge one or moze affectes and accidentes complicated and Joyned with it.

Iohn Yates. You haue nowe showed two kyndes of woundes the one taken of the nature of the wonnded parte, the other of the essence of the solution of continuitye, there yet remayneth to set oute, such as spzinge of the pzoper difference of solutiou of continuitie.

Tho. Gale. There doth so as you saye. And the pzoper differences are taken of twoo thynges. That is to weete of the quantity and of the fygure?

Iohn Yates. And howe be the woundes named, whyche haue there dyfference of quantitye.

Tho. Gale. They are called by these names. a great or litle wounde: a long or shozte

wounde

wounde: a brode or narrowe wounde, a deape or shalowe wounde; and an equall or els an inequall wounde.

Iohn Yates. And how be those woundes named whiche are taken of the figure of the wounde?

Iohn Feilde. They be thus termed. a right wounde an obliquike or croked wounde, and a retorte wounde. There are besides theis three principall differences of woundes: other woundes, althoughe they be not proper. as a wounde disrupted or broken, a wounde whiche is cutte, a wounde partlye broken, and partlye cutte: also, a wounde in the begynnyng, middes or ende of a muscle, and suche like, but theis differences alredye numbred shall suffice, as touchynge the Institution of a Chirurgian in this parte.

Iohn Yates. I suppose no lesse, but what vtilitie springeth by knowing theis differences of woundes?

Tho. Gale. Right great, for you shall not rightlye and methodicallye cure them, excepte you knowe ther differences. For of them is taken the prognostications, the intentions curatiue, the inuention of medicines, and maner of curation. for you wyll not a like prognosticate lyfe & death to the pacientes, of a simple

and

and wounde made in the fleshe. and of a greate wounde made in the ventricules of the brayne.

Iohn Yates. That is verelye so, for the one is with out perill and danger, and the other euer mortall and deadlye. Although Galen affirmeth that his maister Pelops yet beynge a lyue) he salue a younge man wounded in one of the former ventricles of the braine, and that he was restored to helthe.

Iohn Feild. In dede those wounds for the more parte are deadlye. and wher as Galen in his. viij. booke de vsu partium, reherseth that history, he maketh it miraculons, and that the yonge man came to helth, rather by the goodnes of God then helpe of art. But let vs returne from whense we are digressed. A grene and shalow wounde voyde of accidentes, haue not the same curatiue intentions, that a deape and holowe wounde hath, with whiche is also annexed inflamation, flux, dolour, and payne.

Iohn Yates. That is more clearer then sonne at myd day, as the sayng goeth.

Tho. Gale. And touchinge the inuention of medicynes howe saye you, wyll you inuent like for woundes in the nerues and ligamentes, that you wyll for those in the fleshe: or in woundes of the brayne, that you wyll in woundes of the handes: